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The General Practitioner in his Relation to Medical Societies.

Every medical practitioner should be an active member of one or more medical societies. In this enlightened age a physician cannot afford to keep within himself, and refuse to impart to his brother practitioner what he has learned by experience. Much less can he afford to forego the opportunities for gaining the knowledge acquired from the experience of others. It is only by associating in medical societies that physicians learn their own worth. By this means only can the old Greek maxim, "Know Thyself," be practically applied by the physician.

It has been said that a medical society is but an advertising medium for those who read papers. Admitting that the physician who reads a paper, that is published in a medical journal, obtains a certain amount of advertising; admitting even that the paper is read for that purpose, as it often is, I contend that the physician who reads a paper, knowing that he thus subjects it to the honest criticism of his brother practitioners, is justly entitled to all the advertising he gets from it.

To place this Society on a footing where it will do the greatest good, it should have enrolled in its list of members every regular physician in the San Joaquin valley. To accomplish this, the earnest and persistent effort of every member is required. To obtain the greatest amount of good, every member, old and young, should promptly respond when called upon for scientific work.

The impression some physicians seem to hold, that they are too young or that they have never read papers before medical societies, is entirely worthless as an excuse. Any physician who has been in active practice can prepare a paper on some subject that will be of interest to other members. The fear of criticism should never be entertained. The older and more experienced members recognize the feelings of the younger man and spare him the sharper criticism they often give their more experienced brethren.

The benefits to be derived from the intercourse of physicians, in properly organized and well conducted medical societies, are of inestimable value; the barriers due to petty jealousies fostered by non-intercourse are broken down; an interest is developed in subjects hitherto neglected; ideas are broadened, and studious habits inculcated.

The life of a general practitioner who plods alone, usually prevents him from pursuing scientific research in special fields. On the other hand, the specialist has developed so rapidly, and has so steadily encroached upon the field of general medicine and surgery, that he threatens to leave but little for the general practitioner, who, by neglecting to fit himself to diagnose and treat the cases that justly belonged to him, has forced them to seek the specialist for relief. There is but one method for him to gain the ground he has lost, and that is by fitting himself to treat the patients he has hitherto neglected; and there is no better place to lay the ground work for this than in medical societies.

The general practitioner should have a fair knowledge of all of the so-called specialties. He cannot confine himself to malaria, grip, pnuemonia and pleurisy. He should be able to make a chemical analysis and a microscopical examination of the urine, to explore the nasal and auditory passages, and to examine the uterus and rectum. He should be able to make a differential diagnosis between organic and functional diseases of the nervous system, and he should be prepared to meet and to deal with those emergencies that are constantly arising in his practice.

Very few physicians are prepared to test the urine for sugar, and, unfortunately, very many do not know how. I have known regular graduates, in practice for years, who evaporated the urine of suspected diabetics and pronounced the residue sugar.

I have seen many old, country practitioners, physicians for whose opinions, in ordinary cases, I had the most profound respect, boil the urine in a teaspoon, and, if it became cloudy, place the patient on a course of cathartics and diuretics. The country doctor is not the only one who falls into this error. A surgeon who holds a professorship in one of the leading medical colleges in the East once treated a patient for a year for Bright's disease, when a little nitric acid would have cleared up the urine and—the diagnosis.

Very few physicians own microscopes, and many who do, have not familiarized themselves sufficiently with the appearance of the different forms of casts to recognize them when present, or, what is equally bad, to mistake something else for them.

Those affections of the nose and throat, which are known to the laity under the general name of "catarrh," and which the specialist has divided and subdivided into innumerable classes and diseases with unpronounceable names, deserve the earnest attention of the family physician. He sees them in their incipiency and can, by early treatment, prevent them from assuming the chronic and intractable type they are sure to, if neglected. To do this, he must provide himself with a few inexpensive instruments for illuminating the passages and for making applications to them.

He must, however, bear this fact in mind when he comes to the question of treatment, that, while the formidable nickel-plated spraying apparatus, with its pressure gauge, impresses the patient, it is of but little value except to cleanse the parts and put them in an aseptic condition, preparatory for such applications or operations as may be necessary. A few local applications to an ulcerated septum will often prevent its destruction; the careful application of some escharotic will often cure a hypertrophy of the membrane and relieve stenosis; applications to the pharynx will relieve chronic pharyngitis and arrest eustachian diseases and consequent deafness.

An illumination of the external auditory canal will sometimes enable the physician to discover inspissated wax, which, when removed, will cure the patient of deafness, and thus save the doctor the mortification of having the case cured by some traveling quack, who would advertise it in every paper on the coast.

There are so many symptoms arising from errors of refraction that it is often difficult to treat a patient satisfactorily, without being able to exclude or to correct a possible error. While all physicians cannot become oculists, they can, at a very small expense, provide themselves with a few convex and concave spherical lenses, test-types and charts, so that, with a little experience, they can determine whether their patients are suffering from hyperopia, myopia, or astigmatism, and, if necessary, send them to a competent oculist to have the error corrected.

The custom of sending patients to traveling opticians and jewelers, who claim to be graduates of some optical school, is most pernicious, and should be condemned. The time is rapidly approaching when provision will be made for testing the eyes of children in our public schools for errors of refraction, and for correcting such errors as may be found. Every small city should have at least one physician who is able to diagnose and to correct these errors, and the other physicians should give him their support and coöperation.

There is another class of cases that demands the attention of the general practitioner, and that he has sadly neglected, in consequence of which a rich field has been provided for the specialist. I refer to diseases of women. It is because the family physician neglects these cases at a time when he alone should attend to them, that they assume the serious types and complications that, sooner or later, require the attention of the specialist or the surgeon.

Thirty years ago the general practitioner was something of a gynecologist. He cauterized the os through a glass speculum for ulceration, and inserted a glass ball for displacement. Cauterizing the os gave way to Emmett's operation for lacerated cervix, and the glass ball was discarded for the innumerable devices called pessaries, which bore the names of their illustrious inventors. They, too, have gone, with the solitary exception of the retroversion pessary invented by Hodge and modified by Thomas, Albert Smith and others. Today surgeons even deny the existence of anteversion, for the cure of which they devised so many instruments. It is little wonder, then, that the general practitioner neglected to keep pace with the specialist.

While there is great diversity of opinion among gynecologists concerning uterine diseases and their treatment, all agree upon the following points:

1. That a lacerated perineum will, sooner or later, produce displacement of the uterus, and should always be repaired.
2. That subinvolution, if not cured, will result in deformities, displacements, endocervicitis and endometritis.
3. That recent uncomplicated cases of displacement are easily cured.
4. That cases complicated with endocervicitis and endometritis should be thoroughly curetted, the congestion and inflammation cured, the mobility restored, and the uterus retained in an anteverted position by a retroversion pessary.

There is no reason why the physician who has become skillful in the use of the obstetric forceps, who can dilate the cervix and remove the placenta in miscarriage, cannot learn to repair a lacerated perineum, curette the cavity of the uterus, place Bozeman's column of pledgets, or fit a retroversion pessary. If he will do this, he will save many of his patients from becoming confirmed invalids.

There is a so called "specialist" who deserves mention. He calls himself an "electrotherapeutist." He does not treat a class of diseases like other specialists; he treats all the diseases flesh is heir to. In the volumes he has written, he gives glowing accounts of the wonderful results he has obtained. As a rule he knows very little about electricity, but he has encroached more upon the field of general medicine than any other specialist. If you would keep your cases out of his hands, you must provide yourselves with suitable apparatus, and treat such cases as honest experience has shown can be benefited by electricity.

There is no reason why you should not learn to apply electricity, nor is there any reason why you should deny its efficacy as a therapeutic agent. An elaborate or expensive outfit is not required; a good portable apparatus, kept clean and in perfect order, is far better for the country physician than the cumbersome stationary batteries that can only be used in an office. Electricity is not alone useful as a therapeutic agent; it affords one of the most reliable means of diagnosis, in certain spinal affections, that we have at our command. With it we are able to test the reaction of muscles, and to determine whether we are dealing with functional or organic lesions.

I do not desire to be understood as condemning specialism in medicine. It is to those specialists who have devoted the best years of their lives to research and investigation in the different fields of medicine we owe the results that have raised our profession above the plane it formerly occupied, and made, at least, a part of it an exact science. While they have often used our patients for their experiments, they have ever been ready to publish their results, and to extend to us every facility to learn the methods they have pursued. It is to the results of their experience that we must look if we would improve ourselves.

The object of my remarks has been, not to suggest to you your duties as general practitioners—you know them as well as I—but to open up a broader field for the future work of this Society. I hope to awaken an interest in the subjects which I have so briefly outlined, and to induce the general practitioner to prepare papers and to discuss subjects that have hitherto been dealt with only by the specialist. In thus developing an interest amongst the members of the San Joaquin Valley Medical Society in its future growth and welfare, I feel certain they will endeavor, by earnest work, to make it second to none on the Pacific coast.

ADDITIONAL NOTE UPON THE PREPARATION OF OXYTOXINES

By J. O. Hirschfelder, M. D., Professor of Clinical Medicine Cooper Medical College, San Francisco.

Further investigation upon the preparation of oxytoxines has shown that at times all of the toxine does not become oxydized, when the entire quantity of peroxide of hydrogen is added to the toxine and the mixture heated to 100° C. for 96 hours. On one occasion tuberculin so treated was found to contain unaltered toxine, which was oxydized upon further addition of peroxide of hydrogen and resterilized for 48 hours. Besides, it has been found that the rubber caps put over the cotton stoppers rapidly burst from the oxygen evolved, in spite of the precaution of covering them with a strong muslin cap.

It has, therefore, lately been my custom to add one-eighth of the requisite quantity of peroxide of hydrogen every 12 hours, and simply stopper the flask with cotton, doing away entirely with the rubber cap, and then sterilize at 100° C. continually for 96 hours, as in the earlier experiments. At the end of this time free peroxide of hydrogen is nearly always found, and experiments upon tuberculous guinea pigs show that the excess of peroxide must be removed before the lymph can be safely used. The observations upon the persistence of the peroxide of hydrogen in an organic fluid are quite at variance with our ideas of the chemical action of the peroxide.

The removal of the objectionable peroxide can be readily accomplished by rendering the lymph alkaline and then heating. The presence of the peroxide can be easily determined by any of the well known tests. One of the neatest is the addition of the cold liquid to be examined to a mixture of bichromate of potash and sulphuric acid. If peroxide of hydrogen be present, a blue color, due to perchromic acid, developes. This perchromic acid is soluble in ether, which it colors deeply blue. After the decomposition of the peroxide, add 5 per cent. of boric acid, and after filtration the preparation of the lymph is complete. A similar method is used in making the other oxytoxines.

It may be of interest to state that the oxytoxines of typhoid produce the same agglomeration of the bacilli of typhoid in pure culture as does the blood of typhoid patients, but it acts more vigorously in this direction than does the blood or the serum of any case thus far tested.

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LOCAL ANESTHESIA.

By JOHN FIFE, M.D., Red Bluff, Cal.

Read before the California Northern District Medical Society.

It is not my intention to bring before you anything that is new in this paper. My desire is simply to call attention, anew, to a valuable method of local anesthesia, which has not, I believe, received the attention at the hands of the profession that its merits deserve.

When the subcutaneous injection of cocaine as a means of local anesthesia was first introduced, it was thought that, at last, the ideal method had been found; but numerous reports of untoward effects of the drug, including a number of deaths, pointed out that, however efficient, its use was attended with considerable risk, especially in parts that could not be shut off from the general circulation.

It was with much interest, therefore, that I read in the July, 1895, number of *International Clinics*, a lecture by Dr. Schleich, of Berlin, on a new method of local anesthesia, which he has termed "Infiltration Anesthesia." It consists, primarily, in the intracutaneous injection of one of three solutions, which differ only in degree of concentration. "The result obtained," to quote the author, "is explained by ischemia due to compression of the vessels; by pressure on the tissue proper, notably on the nerves; by the temperature of the fluid being lower than that of the body, for if both are the same the effect is greatly diminished, whereas by refrigeration down to the freezing point it is decidedly enhanced; and finally, by direct chemical alteration of the nerve substance."

Formula No. 1, for hyperesthetic areas, is as follows:

Hydrochlorate of Cocaine	gr iii
Hydrochlorate of Morphine	gr ⅓
Chloride of Sodium, sterilized	gr iii
Distilled Water, sterilized	℥ iii M.
et adde. Sol. Acid. Carbol. 5 per cent.	gtt ii

Formulæ 2 and 3, the former for use in moderately hyperesthetic areas, the latter in extensive operations, alternating with one of the stronger solutions, differ from No. 1. No. 2 contains but one and one-half grains of cocaine, and No. 3 contains but one-sixth grain of cocaine and one-twelfth grain of morphine. The maximum dose of solution No. 1, if it were all absorbed, would be twenty-five syringefuls; but, as fully one-half is exuded during the operation, that quantity may be safely doubled. Of No. 2 double the quantity may be used; and of No. 3 practically an unlimited amount with perfect safety.

The method of applying it is as follows: A hypodermic syringe having been filled with the solution to be employed, the needle, held parallel to the surface, is introduced beneath the epidermis, and pushed on until its beveled surface is buried. By pressing the piston a wheal is produced, which is instantly anesthetic. The needle is then withdrawn and reintroduced, within the wheal, at its furthest extremity in the line of the contemplated incision; another wheal is formed, and so on until the line is covered by a continuous chain of wheals. Unless its site be frozen, of course the original puncture will be attended by the usual amount of pain; but each subsequent puncture will be absolutely painless.

Further procedure will now depend upon the operation to be performed. If it be for a simple subcutaneous abscess, it may be opened painlessly, through the line of wheals; but if it be more deeply situated, after incising the skin, it will be necessary to infiltrate the overlying structures, including the abscess sac, in the manner already described. Care should be taken, as pointed out by the author, that the sac be not punctured, as its sudden distention would create pain. For the removal of tumors, after infiltration and incision of the skin, the tissues surrounding the entire circumference of the growth should be thoroughly infiltrated, a curved needle being used for the purpose. For the removal of external hemorrhoids the initial wheal should be established in the skin at a distance of one and one-half inches from the tumor, and after carrying the line of wheals up to the summit of the tumor, the tumor itself should be distended with the fluid. For the incision of felons, the affected member should be encircled by a line of wheals, at a distance from the inflamed part, and the subcutaneous tissues infiltrated down to the periosteum.

Prof. Schleich has employed this method in some 3,500 operations, some of which were of considerable magnitude, such as herniotomy, resection of the clavicle, and amputations.

My first experience with it was in a case of epithelioma of the dorsum of the hand, and it was a partial failure, owing to my want of practical knowledge of the details. The growth was very spongy, and, in infiltrating, I pushed the needle into, instead of beneath, its base, thus allowing the fluid to spurt out of the interstices, instead of being confined within the surrounding tissues. The result was that while the incision down to the base was painless, curettage and cauterization of the base was extremely painful. My next case was a subpectoral abscess, which necessitated a deep incision. Though the patient was very nervous and afraid of being hurt, he stated that he felt no pain.

I have since performed a number of minor operations, including circumscision, removal of subaceous tumors, and incision of abscesses, painlessly. I haye, therefore, no hesitation in asserting that the method is efficient, and it goes without saying, that it is safe.

EYE BANDAGES.

By C. J. Miner, M.D., Fresno, Cal.

Read before the San Joaquin Valley Medical Society.

In spite of the seeming triviality of this subject I think it will afford a few profitable words of comment and discussion. Because of its very triviality it is seldom given much thought, and a remedy that I think is an important factor in ophthalmic treatment is sometimes neglected and more often abused. Many of us have been in the habit of telling every patient who has a sore eye to protect it with a bandage. I hope to demonstrate that unless a patient is obliged to expose his eye to dust and other irritations, this bandage is generally useless and often positively harmful.

The effect of a bandage upon the eye can be quickly summed up: It prevents contact with the air, the dust and the light. It exerts a greater or less degree of compression. It holds the lids motionless. It raises the temperature of the part covered. It retains the secretions and tears in the conjunctival sac. That these actions are not all desirable can be readily seen. It is self-evident that the retention of secretion is not, nor is it ever desirable to produce a moderate rise of temperature in an inflamed eye. Extreme heat or extreme cold have a good effect; moderate heat never. Is it not a manifest inconsistency to direct a patient to apply frequent cold compresses and also to do up the eye to protect it from the cold air?

This leaves in the list of effects that may be desirable—protection from dust, air and light, compression and immobility of the lids. Protection from dust is always to be desired, but I very much doubt if an eye is often the better by being protected from the air, if this air be tolerably free from dust. The atmosphere is the natural medium for the eye, and, other things being equal, I believe it will recover from most inflammations more promptly and surely in this medium. I have proven this many times by experiment. In treating some bilateral inflammations of about equal severity in each eye, and in which the only reason for applying the bandage was protection from the air, I have bandaged one eye and left the other one open. With almost invariable regularity the inflammation in the bandaged eye lasted the longer. After cataract operations I used to keep the eye operated upon bandaged for three or four weeks, and for three or four weeks the injection of the conjunctiva persisted. For some time past I have been in the habit of removing the bandage from eyes in which there were no complications on the sixth or seventh day after operation, and I find that the irritation of the operation passes off much more quickly than it formerly did. This is of course done under precaution. The temperature and light of a patient's room must be carefully regulated. So I think on the whole that we are rarely called upon to protect the eye from the air.

Protection from light is in the same category, though to a less extent. But protection from light can often be obtained by darkening the room much better than by using a bandage. Of course, when there is extreme photophobia we must resort to a thick black bandage. We have all seen little patients afflicted with phlyctenular keratitis who would bury their heads in pillows in the darkest corner of a dark room and still complain of the light. Such photophobia as this must have protection. With photophobia of a less degree if the darkening of the room be carefully looked to and the patient be encouraged to stand some pain at first, I find that the photophobia decreases in a few days and that the disease progresses more favorably without the bandage.

The elimination of these factors leaves in our list of indications for bandaging, only compression and the need of motionless lids. Taking up the list of common eye diseases, in what conditions is a bandage to be desired and in what ones is it to be shunned? First conjunctivitis. In all forms of this trouble, uncomplicated by corneal lesions, the bandage should be dispensed with. The conjunctiva is never much inflamed without pouring out abundant secretion, and this is always a contraindication to the use of a bandage. In blenorrhea and ophthalmia neonatorum there is almost invariably an involvement of the cornea, so these conditions will be considered under the next head—diseases of the cornea.

In corneal diseases some discrimination is necessary in deciding whether to apply the bandage, and if so, of what kind, a pressure bandage or one for protection only. When the surface of the cornea is involved, with loss of substance, a bandage should always be applied if the secretion be not too abundant. Although it has ill effects, its benefits outweigh them. In shallow ulcers a simple protective bandage, exerting but little pressure, is to be used. Its chief benefit is to secure immobility of the lids, preventing the constant sweeping of the floor of the ulcer by them. Protection from dust is another important factor. Over an eye with a smooth unbroken surface, the dust constantly deposited is swept away by each movement of winking. But when the surface is broken and depressed the lids cannot sweep the dust away and it remains as a source of irritation and infection. If an ulcer is so deep as to cause fear of perforation, a bandage exerting considerable pressure must, if possible, be used. This will cause the perforation to take place slowly, and render the entanglement of the iris in the corneal wound as slight as possible. In corneal ulcers which complicate conjunctivitis, a bandage can rarely be used because of the abundant secretion. The retention of this in contact with the ulcer does more harm than the good received from protection from external infection and irritation can compensate. This also holds good in blenorrhea and in ophthalmia neonatorum, so that, even though perforation be imminent, and it usually takes place in these diseases, we cannot avail ourselves of the usefulness of the bandage.

In keratitis, when there is no loss of substance of the cornea, a bandage is not indicated. In a lagophthalmos, as in Bell's palsy, a bandage, or, better still, a bit of court plaster, holding the lids together, should be applied to prevent dessication and consequent involvement of the cornea.

In uncomplicated iritis, scleritis or choroiditis I can see no indication for a bandage unless the patient is compelled to be exposed to light and the photophobia is considerable. There is one exception to this, however. When there is any fear of a detachment of the retina, a pressure bandage, long continued, is of much avail.

This completes the list of conditions which a general practitioner is ordinarily called upon to treat. There is one other condition in which the use of a bandage is much neglected. That is strabismus. We all know that when a person squints he often uses one eye to the exclusion of the other, and the disused eye greatly deteriorates. Of course, squinting patients should have their eyes straightened. But if they cannot, or do not, do this, they can retain the vision of both eyes by tying up, for an hour or two a day, the eye which they are inclined to use the least.

THE PRODUCTION OF IMMUNITY FROM INFECTIOUS DISEASES.

By A. E. BRUNE, M.D., San Francisco, Cal.

Read before the San Francisco Medico-Chirurgical Society.

No subject in medical literature has, of late years, received so much attention as the question of immunity. Medical journals, in all languages, have been and are now filled with reports, observations, experiments, and statements pertaining to infectious diseases, their parasitic origin and prophylactic treatment by immunity.

In considering the subject of immunity this evening, it is well for us to pause and look back to the days when this all-absorbing question was yet in its infancy, when suffering humanity appealed to the medical profession for relief from a scourge that, in Europe alone, demanded yearly over 400,000 victims. It is now just one hundred years ago since a medical practitioner, after a prolonged series of observations and experiments, was enabled to announce to the profession, in positive terms, his success in finding a comparatively harmless remedy, by the inoculation of which he could produce immunity against small-pox, a disease that, since its introduction into Europe, had caused the loss of at least 170,000,000 human lives. Let us this evening, by referring to his work, honor the memory of Dr. Edward Jenner, the discoverer of the prophylactic power of vaccination. His discovery proved to be so convincing and so beneficial to mankind, that his name has become immortalized for all times.

It is but fair to state, that the idea of diminishing the susceptibility to small-pox by vaccination did not originate with Jenner; it was rather deduced from an ancient oriental custom of inoculation with small-pox virus, called variolation, introduced into England as early as 1718. Variolation consisted in the inoculation of healthy individuals with the contents of small-pox pustules. It was known in the Orient that cases of variola, artificially produced, would usually run a very mild course and yet give positive protection against future infection. An account of this mode of inoculation had been published in England, in 1714, by a Dr. Tunvoni, of Constantinople. Inoculation was practised here and there for some time, and the beneficial effect, to those so treated, was generally conceded, yet, on account of the danger connected with it, it was finally prohibited by law. The danger consisted in spreading the disease to others and thus causing new epidemics.

The lesson, however, was not forgotten by the people; it became a matter of general knowledge among farmers and cattle owners, who soon commenced to inoculate their animals to protect them against the danger of those frequent and fatal epidemics of a disease similar in nature to small-pox. Those exanthematous eruptions occurred in sheep, horses, and cows, at different times, in epidemic form, spreading over the whole country. As the symptoms, eruptions, etc., were much alike, it was generally supposed that they were the same disease, caused by the same infectious material, and that they were also closely related to small-pox in the human race. In fact, it had been frequently observed that men could be inoculated with the virus of cow-pox. Farmers had, in particular, observed that milkmaids were apt to suffer from pustular eruptions on the fingers from milking cows whose udders were covered with pustules of pox. It had also been observed, that, during epidemics of small-pox, those individuals who had been infected with cow-pox escaped entirely, or suffered very slightly. So much was known of this relation between cow-pox and small-pox among the people at large, that sporadic vaccinations had been made.

Yet all this does not in the least diminish the credit and honor due to Jenner. It was he who collected and investigated all these widely disseminated vague reports and ideas; it was he who, with a positive object in view, experimented until he was enabled to furnish the profession with the most convincing demonstrations of his successful discovery. It was he who proved, scientifically, that vaccination would protect against small-pox, the most dreadful of all diseases with which the human race at that time was afflicted.

That the discovery of Jenner was due to systematically-conducted researches, covering a period of many years, and not to information or accidental observations, may be inferred from the following chronological events;

1. In the year 1768, while a pupil of an apothecary-surgeon in Sudbury, his attention was at first drawn to the protective power of vaccine against small-pox by a country woman.
2. In 1772, after locating in Berkeley, he commenced his studies of immunity on the numerous milkers of that district.
3. In 1788, Dr. Jenner asserted that cow-pox was identical with "grease" in the horse, and that the former originated from the latter.
4. On May 14, 1796, occurred the first vaccination, of the boy James Phipps.
5. On July 1st, of the same year, control inoculations of the same lad with real variola virus were negative in their results.
6. In 1798, when cow-pox again appeared in Berkeley, he commenced inoculations with a view of modifying the severe inflammatory actions so frequently accompanying vaccinations.
7. In the same year he inoculated two boys with equine, and afterwards, to prove the effect, with variola virus.

These many tedious investigations regarding the different varieties of cow-pox, its origin and relations to similar diseases in the horse and sheep, the effect of the virus of one animal on another of a different species, combined to delay the actual discovery for a great number of years. It was only with the successful demonstrations on James Phipps and others, in 1796, that the real task of Jenner was accomplished. On June 21, 1798, Jenner published his first memoir on the subject entitled, "An Inquiry into the Causes and Effects of the Variolæ Vaccinæ, a disease discovered in some of the western countries of England." In course of time, other publications, bearing on the same subject, followed.

Although the evidence accumulated by Dr. Jenner seemed very conclusive, yet vaccination met with violent opposition until a year had passed, when upwards of 70 of the principal physicians and surgeons in London signed a declaration of their entire confidence in it. In consequence of this, in 1799, a public institution for vaccination was opened in London, in which, in the same year, over 6,000 persons were vaccinated.

Jenner's discovery, after having been successfully introduced in England, was soon promulgated through the whole civilized world. It was introduced into America and Austria in 1799; into France in 1800, and in all other countries in rapid succession.

The beneficial effect of general vaccination could soon be noticed by the diminishing mortality of small-pox, and by the mildness and infrequent occurrence of epidemics.

For his great discovery, Dr. Jenner was honored all over the world, and he was elected an honorary member to nearly all the learned societies of Europe. In history Edward Jenner will always occupy a prominent position with the later successful investigators of the same subject, such as Pasteur, Koch, Behring, and many others.

It may be said that the study of immunity had been entirely at rest for a century, from the time of Jenner to the beginning of the new era of bacteriological research. Pasteur and Koch commenced their investigations where Dr. Jenner closed his. During the interval our knowledge of immunity was not advanced, on the contrary, physicians here and there tried to attack the well-established doctrine of Jenner, to deny its value, to lessen its merit, and to aggravate its danger. Such doubt in the efficiency of immunity, and such want of confidence in the method of producing it, entirely terminated with the microscopical and bacteriological revelations in connection with infectious diseases. Since it has been scientifically demonstrated by Pasteur, Koch, and their followers, that each infectious disease depends on a specific germ, the action of which may be modified in various ways, etc., the question of immunity in regard to nature, action, and effect has been better understood, higher valued and more appreciated. If doubts as to the value of immunity, and particularly as to the value of vaccination, had existed and had even found support among medical authorities, it has since been impossible to entertain such views. We now know that immunity can be produced in men and animals against a number of infectious diseases, and we are able to understand and to explain the *modus operandi*.

After the discovery of Jenner, it was Louis Pasteur who first succeeded in advancing our knowledge of immunity. Knowing the parasitic nature of anthrax (splenic fever), and of fowl cholera, he followed the principle of Jenner by infecting animals with a milder form of the disease by means of a weaker brood of bacteria, artificially cultivated. Pasteur found that by keeping a culture of specific microörganisms at a certain temperature with a full supply of oxygen, he could render the organisms incapable of producing spores, and therefore sterile. Before this point was reached, the culture would lose its virulence, although still germinating, and inoculation with it would produce a mild attack which would effectually protect against splenic fever, or fowls' cholera.

A new impulse to the study of immunity was received about 14 years ago from the introduction of new methods of examination by R. Koch. He made it possible to isolate the various pathogenic germs, and to study their properties separately. This led to the discovery of the germs of cholera, typhoid fever, tuberculosis, diphtheria, and other diseases.

The possibility of isolating and cultivating the germs of each disease separately in the test tube, opened an entire new field of research. Investigators were enabled to experiment with these germs and their toxic products directly upon animals, to study their action, mode, time, and degree of infection, the means of counteracting their influence, and finally means of destroying them in and out of the body. These investigations have borne fruit in various directions; they have given us a clearer idea in regard to the nature of many infectious diseases; they have laid the foundation for a rational prophylaxis, and they have indicated in what direction our efforts to relieve infectious diseases may finally be crowned with success.

A better knowledge of parasitic diseases and easier methods of bacteriological investigations stimulated scientists to greater effort in search of proper means of producing immunity against these diseases. The first result in this direction was the discovery and introduction into practice of tuberculin, which, as is well known, is the extract of cultures of the bacillus tuberculosis chemically prepared from a solution in which the bacilli have been destroyed by overheating. Koch deserves credit for first conceiving and proving the idea that in some diseases, not the pathogenic germs themselves, but their products, are poisonous, and that immunity may be obtained by fortifying the system against this poison. The theory of immunization seems to be founded upon this idea. To this group of pathogenic germs belong the bacilli of tuberculosis and of diphtheria.

Koch's experiments, in rendering animals immune against these germs and their poisonous products, consisted in introducing into the system, hypodermically, small quantities of these poisons, and gradually increasing the dose as the power of resistance increased. It was found that animals after having been injected for some time with tuberculin would tolerate without marked reaction doses that at the beginning would have proved absolutely fatal.

These and similar experiments formed the basis of the treatment of tubercular patients with tuberculin about six years ago. We all remember how eagerly and with what great expectation, every practitioner longed for the distribution of this new remedy, the early completion of which had been announced months before by Koch at the Medical and Surgical Congress of Berlin. Tuberculin was, for a time, used all over the world. It did not fulfil all expectations, yet it had a decided effect as a curative agent against tuberculosis. This was best demonstrated by its action on tubercular affections of the skin in the various forms of lupus.

To what extent tuberculin, if early and properly used, will produce immunity, is still an open question. Koch's observations on animals would warrant further experiments. At the present time the use of tuberculin has practically been abandoned; some few practitioners, however, are so thoroughly convinced of its beneficial effect that they are still using it.

The next step forward toward the production of immunity, brings us to the blood-serum theory of Behring. After Koch, his assistant Löffler, Roux, Yersin and others had searched for, detected, and demonstrated the presence of specific toxines in the products of various pathogenic germ cultures, and after they found that these toxines (particularly those of diphtheria bacilli) would, in animals, produce a complex of symptoms identical with the symptoms of the disease itself in the human system, the way was opened for the study of antitoxines. The idea was conceived that infection of the system with toxines would give rise to the formation of antitoxines.

This discovery of Behring was the beginning of a new epoch in the study of immunity. According to Jenner, immunity was produced by inoculating with a milder form of the same or of a similar disease; or, according to Pasteur, by infecting with artificially weakened bacteria cultures; or, according to Koch, with a sterilized extract of the bacilli. Behring's method of immunization is entirely different; he finds it sufficient to inject a mild, non-irritating liquid, the blood serum of a highly immunized animal. This serum will protect any animal against the disease for which the serum-supplying animal was immuninized. Behring first succeeded in demonstrating this form of immunization with two diseases, tetanus and diphtheria, and showed that the antitoxine accumulating in the blood would protect against further action of the toxine. On this theory the action of tuberculin was also based, immunity being produced by a gradual accumulation of antitoxine in the blood.

Behring, by experimenting on animals, found that antitoxines may, artificially, be accumulated in the blood by injecting larger and larger doses of toxines, thereby creating a higher degree of immunity against a certain poison. He further found, and this is the foundation of the present serum theory, that the blood of an animal, rendered highly immune against a certain toxine, when injected hypodermically into another animal not rendered immune, will produce immunity in this animal. The injection of this highly immunized blood not only protected against infection with living bacteria, but also against their poisonous products.

As there is a great difference between these two forms of immunity, Prof. Ehrlich has designated the one conveyed by serum as *passive immunity*, in contradistinction to the other form produced by inoculation, which he named *active immunity*. It has been found that passive immunity is not lasting, because the system has not actively participated in the production of antitoxine, but has simply absorbed the prepared material. As long as this substance circulates in the blood the individual is protected, but as soon as it is excreted, which takes place in a comparatively short time, immunity ceases. The system of an actively immunized animal, on the contrary, has obtained immunity through the participation of its own cells, and for that reason it is more lasting. Active immunity may last for life, passive immunity gives only temporary protection.

Antitoxines have always a specific action, *i. e.*, diphtheria antitoxine only acts against diphtheria, and tetanus antitoxine only against tetanus.

Highly concentrated antitoxine serum was first obtained with tetanus immunization. This serum acted well on infected animals, but did not come up to the expectations in treating human patients.

The diphtheria antitoxine gave better satisfaction, both in man and in the lower animals. The serum was at first obtained from smaller animals, but at present goats, cows and horses are used for this purpose. Ehrlich and Wassermann deserve credit for being the first to produce concentrated serum in large quantities. The toxines for immunizing larger animals are usually prepared from germ-cultures, after destroying the germs by heat or by the addition of some strong desinfectant. Animals to be immunized are injected with larger and larger doses of toxine, till finally the desired concentration of antitoxine in their blood is reached, the strength of which is determined by withdrawing a small quantity from time to time for examination.

The procedure of these examinations is based on observations, made by Behring and Kitasato, to the effect that toxine and antitoxine neutralize each other in the test tube. If to a small quantity of toxine, sufficient to destroy a rabbit, a proper quantity of antitoxine serum is added, the toxine will lose its poisonous effect.

The mode of testing the strength of antitoxine serum is, according to Ehrlich, as follows: In each of five or six test tubes is placed ten times the minimum dose of a toxine which is known to be the exact quantity necessary to destroy the life of a rabbit or guinea pig. To each of these tubes is added a different gradually increased quantity of the blood to be examined; if tube No. 1 receive 0. 1 c.c. of the blood, No. 2 receives 0. 2, No. 3, 0. 3 c.c., et. After thorough neutralization has taken place, the contents of the tubes are injected, each in a different animal of about the same size and weight. According to the action of the mixtures on these animals, the strength of the serum is calculated.

The mode of action of antitoxine serum is differently explained by scientists. Behring believes that the toxine, produced by pathogenic germs at the seat of infection, is absorbed and enters the circulation, where it meets the antitoxine and is destroyed by it in the same manner as in the test tube. The toxine will be acted upon by the antitoxine only as long as it is in circulation, that even an excess of antitoxine is useless after the toxine has been absorbed by the cells.

Buchner and Roux explain the action as follows: Antitoxine renders the cells unsusceptible to the influence of toxine, both toxine and antitoxine exist in the system side by side, the one preventing the destructive action of the other. This condition seems to be equivalent to a rapid immunization during illness. As antitoxine acts immediately after injecting, it has, as well, an immunizing effect.

It seems that there may be a great future for antitoxine in most, or all, of the acute infectious diseases, but not in the chronic forms, as the protection it gives is only temporary.

The time that has elapsed since the introduction of Behring's method of immunization is very short, yet a great deal has already been accomplished, and improvements have been made in various directions. The principle of this mode of immunization has now been applied to nearly all the infectious diseases.

Experiments are continually going on, but as observations have not come to a close, it is too early to reach positive conclusions as to future possibilities. It is, however, certain that in some diseases temporary immunity can be obtained by the use of antitoxine, which may be continued indefinitely by repeated injections.

1104 Market street.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal., and

WM. FITCH CHENEY, B.A., M.D., Adjunct to the Chair of Obstetrics and Diseases of Women and Children, Cooper Medical College, San Francisco, Cal.

Early Symptoms of Rachitis.—PROFESSOR A. JACOBI says: "The very young infant and the young child suffer from rachitis in many ways. Insomnia is quite frequent. Many sleep better when carried about on the arm, because the cerebral congestion is lessened in the erect posture. As soon as they are laid down the brain becomes hyperemic, the child wakes up and makes night hideous. Such children have night terrors on waking up, they are very irritable, easily frightened, peevish or morose and bad tempered, sometimes to a degree of moral or intellectual insanity. The suspicion of rachitis ought to be aroused when children perspire copiously all over, or mainly on the head. They rub their heads on the pillow to such a degree as to become bald on the occiput. I wish I could impress the necessity of connecting these signs with rachitis, and the advisability of not waiting for all its most prominent symptoms to appear before the diagnosis is made. The regulation of the diet is the principal remedy; but it is a mistake to believe that a food which does not disturb the bowels is for that reason alone a sufficient nutriment and a safeguard against rachitis."—*Archives of Pediatrics*, November, 1896.

Blood-letting for Puerperal Eclampsia.—This question has long been discussed, and the procedure is now being highly advocated again in suitable cases—those with full, bounding pulse and flushed face, indicating plethora. WM. M. CATTO, of Decatur, Ill., reports a number of cases treated successfully in this way, and gives it as his opinion that where blood-letting is practised freely and fearlessly, a greater number of recoveries are found than with any other line of treatment for eclampsia. The amount of blood to be drawn is not fixed—bleed until the face becomes pale and the breathing quiet. Venesection is to be followed by catharsis, diaphoresis and diuresis.—*American Gynecological and Obstetrical Journal*, October, 1896.

Gonorrhea in Women.—J. F. SCOTT, of Washington, calls attention once more to the fact that gonorrhea is a much more severe and ravaging disease to women than syphilis. He also refers to the possibility of infection of an innocent bride by her husband because of a latent gonorrhea which he thinks has been entirely cured before marriage. "It is well known," says Scott, "that gonococci lurk in the deep tissues and lacunæ of the mucous membrane long after the symptoms have subsided, and excess in venery, a debauch of wine-drinking, undue physical exertion, or any cause that may bring about a slight catarrh of the urinary tract, will be followed by the reappearance of the gonococci."—*American Journal of Obstetrics*, September, 1896.

SURGERY AND ANATOMY.

By T. W. HUNTINGTON, B.A., M.D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal., and

GEO. B. SOMERS, M.D., San Francisco, Cal.

Linear Supramalleolar Osteotomy.—In cases of deformity after Pott's fracture, or after any fracture of the leg where the tibia does not bear perpendicularly on the astragalus, KERR advises supramalleolar osteotomy. The procedure consists of a simple supramalleolar osteotomy of the tibia alone, similar to, in fact identical with, the Hahn-Langerbach procedure for the correction of valgus. The fibula is not touched, relying on its flexibility, after the tibia is divided, to restore it to its proper relation toward the interosseous space. The broadening of the articulation, which is one of the causes assigned for this disability, is corrected by the bringing inward of the external malleolus as the upper end of the lower fragment is drawn out when the foot is inverted after the tibia has been divided.—*Medical News*, August 15, 1896.

New Method of Inserting a Plate for Restoring a Depressed Nose.—"An incision (under ether) was made within the left nostril at the junction of the nasal bone and cartilage well down toward the maxilla; and cutting through the mucous membrane and cartilage to the skin I inserted a pair of medium-sized scissors through this incision under the skin, and freed it from the periosteum over every part of the nasal bones well on to the frontal process above and down to the terminal cartilage of the septum below. In freeing the portion of skin towards the lower end of the nose it was necessary to dilate the incision and turn up the cartilaginous portion of the left nostril very much in order to turn the point of the scissors down; but as soon as the scissors were removed everything fell into normal position. I fashioned an aluminum plate from a thin finger splint. This plate I held firmly at one end by means of a hemostatic forceps, and introduced it without much difficulty through the incision in the mucous membrane, and thence up over the nasal bone, so it straddled it and lay just under the skin. The plate was one inch long and five-eighths of an inch wide, trough-shaped and corners rounded. No stitches were taken in the mucous membrane."—DR. REASE, in *Boston Medical and Surgical Journal*, July 23, 1896.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M.D., Sacramento, Cal.

A Nasopharyngeal Fibroid Tumor.—DR. E. FLETCHER INGALS reports the case of a boy, eleven years old, from whom he removed a fibroid growth measuring two inches by an inch and a half by one inch from the nasopharyngeal region. Local anesthesia was induced by cocain injected by hypodermic syringe and by spraying into nose and throat. The tumor had been growing for six or seven years and had nearly obstructed nasal breathing. The galvano-cautery snare was used for removing the growth. Two small English catheters were passed through the right naris and brought out of the mouth. The two ends of the platinum wire were passed through the catheters so as to bring the loop around the tumor as the wire was tightened and introduced into the galvano-cautery ecraseur. There was considerable pain and hemorrhage and the growth was drawn out through the mouth with forceps. A number of operations by snare and by the galvano-cautery were performed and the nasopharyngeal growth was destroyed, but a tumor still remained, which had passed behind the palate bone and out beneath the zygomatic arch. The author did not deem it wise to attempt to remove this mass with a knife; he therefore injected it a number of times with a solution of lactic and carbolic acids and glycerine. The first injection consisted of 15 minims of a solution of 25 per cent. lactic acid, 5 per cent. carbolic acid, and 12 per cent. glycerine. Considerable swelling and pain followed the operation, which was not repeated until ten weeks later. After six injections the tumor was found to be reduced from the size of two by three centimetres to about that of a large pea. Part of the remaining tumor was most likely cicatricial tissue.—*New York Medical Journal*, September 19, 1896.

The Course and Progress of Orbital Tumors, as Influenced by Operation.—DR. CHAS. STEDMAN BULL arrives at the following conclusions from his experience in the treatment of orbital tumors: (1) The prognosis of all forms of orbital tumors, whether primary or secondary, is unfavorable; and if the tumor is primarily in one or more of the deep facial bones or their sinuses, the prognosis is positively bad. (2) Except in the case of encapsulated tumors of the orbit, surgical interference is almost invariably followed by a return of the tumor; and the growth of the secondary tumor is more rapid than that of the primary lesion. With each succeeding operation, the period of quiescence in the return of the tumor grows shorter, and the rapidity of growth increases. (3) The patient's family, and in certain cases the patient himself, should in the beginning be told the serious nature of the trouble, and should be warned that complete removal of all the disease germs is a well-nigh impossible task. The burden of the decision as to surgical interference must rest upon the shoulders of the patient. (4) Repeated operations in these cases undoubtedly shorten the life of the patient. While it is therefore our duty to operate in all cases in order to relieve severe or unbearable pain, we should be slow to operate merely for the sake of relieving temporary physical disfigurement or deformity, especially if we are convinced that by so doing we shorten the life of the patient, even if that shortened life is rendered more bearable to him.—*New York Medical Journal*, August 29, 1896.

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

Vulvo-Vaginitis in Children.—DR. H. B. SHEFFIELD, in a paper upon this subject (*American Medico-Surgical Bulletin*) presents the following conclusions: (1) Infectious vulvo-vaginitis in children is of gonorrheal nature; the diplococcus present in the purulent discharge is invariably identical with that of Neisser, decolorizing by Gram's method. (2) The infection can be conveyed through common privies, baths, beds, clothing, etc. (3) The symptoms accompanying the disease are far less severe than those described in most text-books. (4) Most of the complications are preventable. (5) The value of boric acid or mild silver nitrate solutions as prophylactics of purulent ophthalmia is very doubtful. (6) Silver nitrate in strong solution is a reliable abortive of purulent ophthalmia, if used in the very earliest stage. (7) The mere presence of gonorrheal discharge in a small girl, without injury to the genitalia, does not prove that rape has been attempted. (8) Physicians in charge of asylums, or similar institutions, should be on their guard not to admit girls with vaginal discharge, unless they can convince themselves that this is not of gonorrheal origin. (9) The subject in question deserves a more careful study by the gynecologist, pediatrist, as well as by the general practitioner and medical jurist; and by their united observation we should in the near future be enabled to dispel any and all doubt as to the real nature of infectious vulvo-vaginitis in children.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M.A., M.B., C.M., Professor of Clinical Medicine, University of California, San Francisco.

Eucaine.—BERGER has employed this drug clinically, and thinks it a useful substitute for cocaine. It is but little soluble in water; but the hydro-chlorate can be dissolved in water to the extent of 6 per cent. It is not so toxic as cocaine, while its anesthetic effect is fully equal to that of the latter; but, whereas, cocaine produces local anemia, eucaine produces local hyperemia. Applied to the cornea it does not tend to produce local desquamation of the superficial epithelium, which cocaine does, and it has the further advantage of not affecting the pupil or the accommodation. A 1 per cent. solution applied to the eyes causes no pain; a 2 per cent. solution causes some pricking. Anesthesia occurs in a few minutes; the hyperemia of the conjunctiva lasts for half an hour after the anesthesia passes off. The solutions of eucaine are very stable, and so can be easily sterilized.—*British Medical Journal*, July 18, 1896.

Endovenous Injections of Artificial Serum in Acute Pneumonia.—BASSI reports 6 cases of acute pneumonia treated after the method of Galvagni—that is, by endovenous injections of a solution of chloride and bicarbonate of sodium. In each case the pneumonia was double and of a severe type; of the 6 cases 5 recovered, and one died; and at the necropsy double broncho-pneumonia, right lobar pneumonia, acute nephritis on the top of an old chronic nephritis, and

also some mitral stenosis were found. With regard to the other cases, the author believes the treatment was of material service. The best time to give the injections is about a day before the expected crisis, or when the pulse becomes intermittent, or in fact upon any grave alteration in the condition of the patient. A small preliminary bleeding is useful. Whether the treatment acts by preventing coagulation of the blood, by oxygenating (through the incision) the venous walls and reflexly acting on the circulation, or in some less known manner, the author is unable to say, but from his clinical experience in its use, he feels justified in strongly recommending it for further trial.—*British Medical Journal*, July 18, 1896.

MEDICINE AND PATHOLOGY.

By **ALBERT ABRAMS, M.D.**, Professor of Pathology, Cooper Medical College, San Francisco.

Sea Sickness.—DR. CHAS. S. BOWMEAN attributes *mal de mer* to a disturbance of the central nervous system, caused by a partial paralysis of the vasomotor nerves. This paralysis causes a passive congestion of the brain, owing to the relaxed blood-paths, and produces the distressing dizziness, headache, and vomiting. To prove that the nausea is due to nervous irritation, the patient vomits with a clean tongue, unless there is constipation present, when there may be a slight coating. What causes the primary nervous disturbance, he is unable to say. Nausea may be allayed almost immediately by an injection of one quarter grain of morphine, combined with $\frac{1}{100}$ of atropine. This combination, he maintains, never fails to relieve the patient after one repetition. He has tried it not only in sea sickness but in the nausea caused by railway travel, and has reason to believe that it always proves efficient. Chloral will also prove to be a good prophylactic. Given in 15-grain doses, 3 times a day, for two or three days before sailing, will be found enough to produce the desired effect. Knowing that there is a relaxed condition of the blood-paths and a nervous excitability, it stands to reason that the use of morphine for the nervousness and of atropine for a vasomotor stimulant are the proper therapeutic indications.—*Medical News*, May 30, 1896.

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By **A. W. HOISHOLT, M.D.**, Assistant Physician, State Asylum for Insane,
Stockton, Cal.

Transitory Losses of Consciousness in Epileptics from a Forensic Standpoint.—DR. E. SIEMERLING recently delivered a lecture on this subject in which he said that the dream-like modification of the state of consciousness constitutes the essential characteristic of epileptic psychoses, and not the amnesia. Epileptic or epileptoid conditions and psychoses must be considered symptoms of a disease of the brain; among the so-called acute and chronic forms of these psychoses we find the most varying transitional forms. The transitory dream-states (Dämmerzustände) are characterized by a sudden interchange of an apparently regular, indifferent, or ordinary behavior with strange, unexpected acts, which often have a violent character. The epileptic psychoses always show a history of epileptic or epileptoid antecedents, and the writer emphasizes especially that epileptoid conditions, particularly those having the character of a vertigo, are more frequently met with than is generally supposed. In the absence of all epileptic and epileptoid symptoms, all remaining manifestations, such as amnesia, similarity of attacks, peculiarity of acts or of hallucinations, would allow a probable diagnosis of epilepsy.—*Berliner klin. Wochenschr.*—*Centralblatt f. innere Medicin.*

FORMULÆ.

By H. E. SANDERSON, Ph.B., M.D., Assistant Physician State Asylum for Insane, Stockton, Cal.

Delirium Tremens:

Potass. bromid.
Sodii bromid........āā gr. xv
Chloral. hydrat.........gr. x
Tinct. zingeberis .... ʒx
Tinct. capsici .... ʒv
Spirit. ammon. aromat. ʒi
Aquæ..................... ℥ii—M.

Sig.—Dose, a tablespoonful.

—*Vanderbilt Clinic.*

Abortive Carbuncle Treatment:

Resorcin ....gr. xlv
Lanolin .... ℥i—M.

Sig.—Apply to carbuncle after having made multiple parallel incisions. —*Medical Summary.*

Sexual Neurasthenia:

Quinin. bisulphat.......℈i
Ferri subcarb.............ʒi
Strychnin. sulphat......gr. ss
Ext. damianæ.............℈i
Ext. cinchonæ ....℈ii—M.
Ft. Capsulae No. 20.

Sig.—One after each meal.

—*Virginia Medical Semimonthly.*

Hemorrhages:

Fld. ext. cotton-root bark.
Dose, 20–30 minims, p. r. n.

This is said to be efficacious, whether the bleeding be from the uterus, lungs, urinary tract, or nose.—*North American Practitioner.*

PUBLIC HEALTH.

By W. R. CLUNESS, M.A., M.D., San Francisco, Cal.

Mortality for October, 1896.—The deaths registered in 44 town districts of the State, during the month of October, in a population of 663,430, correspond to an annual rate of 15.84 a thousand, the total mortality having been 880. 76 deaths were due to zymotic diseases, giving an annual rate of 1.36 a thousand. Of these, 7 were due to diphtheria, 19 to cholera infantum, 22 to typhoid fever, 9 to diarrhea and dysentery, 11 to cerebro-spinal fever, 3 to whooping cough, 4 to croup, 3 to intermittent and remittent fevers, 1 to scarlet fever, 0 to measles, and 0 to small-pox. 218 deaths resulted from diseases of the respiratory organs, giving an annual rate of 3.84 a thousand. Of these, 141 were due to consumption, 58 to pneumonia, 12 to bronchitis, and 7 to pulmonary congestion; the rate being, for consumption and pneumonia, 2.51 and 1.04, respectively. 83 deaths resulted from diseases of the heart, 4 from alcoholism, 0 from erysipelas, 44 from cancer, and 380 from causes not given. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 561,800, was 16.08. The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, the lowest from Alameda.

METEOROLOGY.

Summary for October, 1896—*Temperature.*—The normal temperature of the State for October is 61.1°; the average for October, 1896, was 62.7°, a departure from the normal of +1.6°. The highest monthly mean was 85.3°, at Salton; the lowest, 39.0°, at Bodie. The maximum temperature was 112°, at Volcano Springs, on the 6th. The minimum, 5°, at Bodie, on the 28th. The absolute range for the State was 107°. The greatest monthly range was 65°, at Bodie; the least, 23°, at San Miguel Island.

Rainfall.—The normal precipitation for the State for October is 1.22 inches; the average for October, 1896, was 1.31 inches, a departure from the normal of +0.09 inches. The greatest monthly precipitation was 5.02 inches, at Claramont; the least, nothing, at Indio and Volcano Springs.

Wind.—The prevailing direction of wind was W.NW.

Unusual Features.—There was no unusual meteorological phenomenon during the month.—JAMES A. BARWICK, Director California Weather Service.

California—Tabular Statement for October, 1896.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn .... Cal.	65.1	90	47	----	----	----	----	1.09	----	----	----	----	N.W.	Southern Pacific Company.
Berkeley .... "	60.0	82	47	67	52	15.0	3	1.91	86	10	13	8	N.SE.	Obs. University of California.
Colfax .... "	61.1	90	36	----	----	----	----	1.62	----	----	----	----	S.W.	Southern Pacific Company.
Coronado .... "	68.7	85	57	76	61	14.7	4	0.97	31	22	1	8	N.W.	Hotel del Coronado.
Eureka .... "	52.6	70	42	59	46	13.0	8	2.37	91	7	17	7	N.W.	Weather Bureau Dept. Agr.
Fresno .... "	66.7	94	43	81	52	29.0	1	1.28	50	21	6	4	N.W.	" " "
Keeler .... "	71.6	90	48	----	----	----	----	T	----	----	----	----	S.	" " "
Los Angeles .... "	65.0	90	47	77	54	23.0	3	1.30	77	15	14	2	W.	" " "
Monterey .... "	56.6	76	44	----	----	----	----	0.65	----	----	----	----	W.	Southern Pacific Company.
Napa .... "	61.9	94	39	78	46	32.0	3	1.20	76	18	8	5	S.W.	Station Napa Insane Asylum.
Oakland .... "	58.0	81	45	67	50	17.0	5	1.72	85	23	5	3	N.W.	Chabot Observatory.
Paso Robles .... "	63.0	96	40	78	48	30.0	1	1.66	----	16	14	1	N.W.	Agr. Experimental Station.
Red Bluff .... "	67.0	94	44	80	55	25.0	3	0.66	43	23	5	3	N.W.	Weather Bureau Dept. Agr.
Sacramento. ... "	65.6	92	44	78	53	25.0	2	0.55	50	19	9	3	N.	" " "
San Bernardino "	65.0	96	41	82	49	33.0	2	2.10	----	21	8	2	W.	A. K. Johnson, M. D
San Diego. ..... "	64.2	79	52	70	58	12.0	4	0.97	81	22	1	8	N.W.	Weather Bureau Dept. Agr.
San Francisco.. "	58.8	85	47	66	52	14.0	5	1.55	82	19	9	3	W.	" " "
Santa Barbara.. "	63.3	82	48	72	55	17.0	1	0.92	75	20	6	5	W.	Hugh D. Vail.
Santa Cruz ...... "	58.0	94	38	73	44	29.0	2	1.88	----	20	5	6	W.	W. R. Springer.
Yuma .... A. T.	75.5	102	48	89	62	27.0	3	0.10	53	22	8	1	N.E.	Weather Bureau Dept. Agr.

Blank (----) indicates data missing.

Occidental Medical Times.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: DECEMBER, 1896

SAN JOAQUIN VALLEY MEDICAL SOCIETY.

The first semi-annual meeting of this Society was held in Fresno, on Tuesday and Wednesday, October 27th and 28th. The meeting had been originally called for the regular date, October 13th, but through some misunderstanding on the part of the local committee, it became necessary to postpone the date until the latter part of the month. This, however, did not seem to have affected the attendance, as more than two-thirds of the members were present. This attendance, however, was largely from Fresno and Fresno county, localities from a distance not being very well represented. The Society, as originally organized, contemplated a meeting occupying one day only, with two or three sessions, as might be found advisable. On this occasion, the total number of papers on the programme, including the President's address, was eleven, and as the Committee of Arrangements believed it to be impossible to condense these into a single day, it was decided to prolong the meeting into the day following. This course was subsequently discussed by the Society, and it was agreed that in future the meetings should occupy two days.

As will be seen by our report, published elsewhere in this issue, a very lively interest was taken in the proceedings. The papers read were freely discussed, and it is quite evident that the Society now presents an excellent nucleus for a permanent and most useful organization, if the lines upon which its work is projected are carefully considered. We believe, however, that the Society has made two serious mistakes which it will be well to rectify at the earliest opportunity. The first of these is the adoption of a two days' session. We believe that experience will show this to be both undesirable and impracticable. The meetings of a District Society, occurring twice a year, must be so arranged as to suit the convenience of a majority of the members. As a rule, the country practitioner finds it harder to leave his sphere of work than the man who practises in the larger towns and cities. Presuming that he takes an annual vacation, and that he will also endeavor to attend the State Society meeting, his absence, even for a day, on two other occasions, may be exceedingly inconvenient and perhaps impossible. Probably one more day may be consumed in traveling, and his absence from practice is further prolonged. The Society now proposes to increase the length of time during which this absence will be demanded. It may be urged that a two days' session gives physicians an opportunity of being present, at least, on one day of the meeting. In practice, we are quite certain it will be found that this does not work well, and it must always be remembered that a good attendance at a meeting is directly productive of good work, while a sparse attendance and a poor audience is a most effectual damper. The second error that we believe has been committed, is in the selection of Fresno for the next meeting of the Society. There will then have been three successive meetings in that city. For many years we have pointed out that the success of a District or State organization largely rests upon its intimacy with its constituents. This, we believe, has been amply demonstrated by the growth of the Northern District Medical Society. It is absolutely necessary that an organization of this character shall visit the various centers in its territory. Failure to do so inevitably results in centralization of the Society and in an increasing lack of interest on the part of the profession from which its membership should be recruited.

On the evening of the first day a banquet was tendered the visitors by the Fresno County Medical Society. The local profession, of course, was largely in the majority, and the entertainment was a very pleasant affair. **Dr. D. H. Trowbridge**, of Fowler, acted as toastmaster, and filled the position very creditably.

THE COMMENCEMENTS—DEPARTMENT OF PHARMACY, UNIVERSITY OF CALIFORNIA.

The commencement exercises of the Department of Pharmacy, University of California, were held at Native Sons' Hall, San Francisco, on Thursday evening, November 12th. The valedictory address on behalf of the faculty was delivered by **Dr. C. Hadley Carlson**, Lecturer on Physiology, and the degrees were conferred by **Prof. Martin Kellogg**, President of the University.

The following are the names of the graduates: Frank James Atkinson, Daisy M. Bowen, Edgar Bridgewater, Joseph Michael Campodonico, Edward Martin Cherry, Orlando Paine Crozier, John Joseph Crowly, Wellington Irving Clayes, Arthur Edgar Duprey, Emilio Attilio Ferrea, Edward Russell Hanlon, William John Haber, Vincent Walter Hopkins, Thaddæus Burton Houghton, William John Jackson, Eugene Aloysius Kiely, George Ashby Laubersheimer, George Henry Philip Lichthardt, George William Minstrell, Royal T. Moore, George Thomas Noe, Ada Marian Parr, Darius Leopold Perrone, Helen Grace Reynolds, Otto Scholl, Edward Louis Wegener.

The total number of students in attendance during the past session was 93; the number of matriculates being 62.

The faculty of the College has recently decided to change the time of the session from summer to winter, so as to accord with the other departments of the University, as well as with colleges of pharmacy throughout the country. In order to do this it will be necessary to shorten the vacations after the next two terms. The next term will commence February 1st, 1897, continuing until the 1st of September. The term following will begin about November 1st of that year. The next term will begin about September 1st, 1898, and the college year will, in future, commence with that month.

The present system of summer instead of winter courses, which has always been a surprise to Eastern visitors, was adopted in 1873, partly because it was the best time for the practical study of botany, and partly as, at this season of the year, trade in San Francisco being lightest, those of the students who were employed in the local drug stores could find more leisure to attend the lectures of the College. Since then conditions have greatly changed, and the advantages of a winter term have, for some time, seemed so apparent that the faculty decided to make the change. It is hoped that the building of the Affiliated Colleges, soon to be erected near Golden Gate Park, will be ready for occupancy in 1899. The College of Pharmacy will then be as well equipped as any of the larger colleges in the East.

NOTES.

Dr. F. H. Payne.

We regret to learn that on November 10th, Dr. F. H. Payne, of Berkeley, met with an accident that very nearly proved fatal to him. The Doctor, who is an excellent horseman, very frequently makes his rounds on horseback, and on this occasion was riding an animal with which he was quite familiar. In crossing the University grounds the animal took fright, and through some fault of the bridle the rider lost control. The horse crossed Oxford street and attempted to enter a vacant lot, when its feet slipped on the cement walk and it fell heavily, carrying the Doctor down and pinning him underneath. In this position, and while the animal was struggling to regain its feet, the Doctor was struck in the face, producing an extensive wound on the forehead. He was at once removed to the residence of Dr. Eastman, where he was promptly cared for. There does not appear to have been any fracture of the skull, nor was there any inflammatory reaction. The Doctor was unconscious for several days, but is now perfectly sensible to all his surroundings and is, we are glad to say, rapidly recovering.

The San Francisco Board of Health.

The present Board of Health of San Francisco has proved itself most energetic and progressive. The crusade against impure and adulterated milk, has resulted in a vast improvement in the quality and methods of handling the milk supply. Its persistence and strong efforts have wrung a very largely increased appropriation from the Supervisors, so that it has been able to carry out many reforms. Its condemnation of many old rookeries in Chinatown, and its action in personally supervising their demolition, awakened people to the fact that its reform movement was not only in earnest, but effective. Stations have been established in the outskirts of the city, through which all food supplies must pass for inspection. It has also condemned the buildings of the pest house. This action has been taken by several preceding Boards, but the present Board has gone further and has notified the Board of Supervisors that the buildings will be destroyed within ten days from date of notification (November 16, 1896); that the best place for housing the present inmates of this hospital is on the grounds of the City and County Hospital, and that a building be erected there for that purpose. A "Circular of Information to the Public," in regard to diphtheria and tuberculosis has been prepared and will shortly be widely distributed. By its request, also, the Supervisors have agreed to pass an order including typhoid fever, measles, and tuberculosis, among the diseases requiring compulsory notification. Surely with even these reforms accomplished, the present Board of Health has done enough to establish for itself a lasting record.

A San Francisco Academy of Medicine.

The condition of several of the medical societies of San Francisco indicates that the time is at hand when a union of several of them would be desirable. This would conduce to a better organization among the medical profession, a greater influence in public opinion, better library facilities, and a healthier and surer growth in the medical standing of the community. If an out-and-out union, by which such societies as the Obstetrical and the Society of Oculists became sections of a general society is not at present possible, at least such association as would enable them to divide the expense of renting suitable quarters for meeting and the housing of the several libraries, so that they could be always accessible, might be brought about. It is not unlikely that such quarters could be obtained in the Academy of Science building, where it would be desirable to center all the scientific societies of the city. The total expense of maintaining the rooms would not be greater than the amount now paid by the several societies for their wholly inadequate meeting places, and the advantages are apparent. The existence of an Obstetrical Society, independent of the County Society, is certainly an evidence that there is a sentiment in favor of dividing the County Society into sections, and with a number of such special societies as the nucleii of these sections, there seems reason to believe that the plan would work—especially as a large number of physicians are at present members of two, and even three, of the organizations. We would suggest the formation of one comprehensive society, which might properly be termed the "San Francisco Academy of Medicine." This would consist of a central body for the transaction of general business and of such matters as can be dealt with only by a local organization similar to the present County Society. For special scientific work the members could then be separated into as many sections as would be found to work advantageously. The meeting nights of these sections could be arranged so as not to conflict with each other, thus permitting any member to be present at all of the section meetings. A similar plan has been adopted in many large cities, and it only needs some modification to fit it to the local needs.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, October 20, 1896.

The President, F. B. Sutliff, M.D., in the Chair.

New Member.—W. H. Wentworth, M.D., was duly elected a member of the Society.

Lupus Vulgaris.—Dr. G. C. Simmons presented a case of lupus vulgaris affecting the nose. The patient, a woman, was about 35 years of age, and the disease, which had existed for some time, had proved exceedingly refractory to treatment.

Dr. G. C. Simmons read a paper entitled "Sketches of a Few Eminent Men."

The paper was mainly reminiscent of the doctor's experience during his several visits to Europe, and dealt with the personal characteristics and the social and professional status of a number of prominent teachers and professors in the different centers that he had visited. The drift of the paper went to show that several of the professors under discussion, and who were recognized as authorities abroad, were at home mainly occupied in teaching, and frequently were not in the enjoyment of remunerative practices.

The paper was discussed in a reminiscent strain by members of the Society to whom the persons referred were familiar from personal observation.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, October 13, 1896.

The President, WM. FITCH CHENEY, M.D., in the Chair.

New Members.—MARY A. WATERHOUSE-GRANT, M.D., and FRANK DONALDSON, M.D., were duly elected members of the Society.

The Treatment of the Singing Voice, with Remarks on the Intrinsic Movements of the Vocal Cords.—DR. FRANK DONALDSON read a lengthy paper on this subject. He said: The intrinsic movements of the vocal cords in singing have been the subject of considerable discussion. It has been generally held that, in the lower notes, they vibrate as a whole throughout their entire length; but that in what is ordinarily known as their falsetto register, the cords themselves are relaxed and their margins or mucous covering only, vibrate. The intrinsic movements of the cords were not studied until 1878, when Oertel investigated them, but it was not until 1895 that the results obtained with the stroboscope, in its improved form, and the human larynx, were published by the same author. The speaker then described at length, the construction of this instrument and the physiological results that had been attained by its use in investigating the movements of the cords in singing. He said the object of his paper was rather to discuss the treatment of the singing voice. Speaking generally, the treatment to which such a delicate organ as the larynx was submitted, was a reproach to our art. Many of the applications now made to the cords, while temporarily improving their condition, were of no service in reaching the cause of the hoarseness and vocal breakdown. In addition, they soon caused a chronic thickening of the tissues and a permanent impairment of the voice for speaking or singing, which even prolonged rest will fail to relieve. Complete rest will, undoubtedly, in many cases, restore the vocal organ to its normal condition, but it is merely a question of time when the patient again comes complaining of the old symptoms. The cause of this, he believed, was the faulty methods of breathing taught by so many teachers and practised by so many artists. He said he had long recognized that a change in the vocal exercises would temporarily relieve the strained cords, but no method of applying this knowledge so as to permanently improve them, had presented itself. The credit of perfecting such a method was due to Curtis, of New York. He had found that a certain train of local phenomena were presented by the pupils of one teacher, and that the pupils of another teacher presented, invariably, a different condition of the glottic opening, with a different shape of it when practising. The pupils of one teacher, in daily practice, used the vowel "o" with a faulty method of breathing, while those of the other teacher used the vowel "a" under similar circumstances. Curtis found that by substituting in the one case the vowel "a" and in the other class the vowel "o," the local conditions were soon relieved. As this, of course, would only end in replacing one pathological condition for another, he was led to seek some combination of consonants with a vowel, that would reduce the shock of air breaking through the glottis to a minimum, and that when used constantly would not allow the vocal cords to come together at any point. With this object, and that the tone might be thrown forward, he built up a series of exercises with the labials "p" and "b," which are formed at the lips, with "a" and "aw," making the sounds "mah" and "maw." The speaker said he had used these exercises in practice and with excellent effect. The method of breathing that he advised, was that in which the singer is taught to elevate the upper part of his chest by muscular effort, and to keep it fixed in that position, combined with what

Curtis has called inferior costal and diaphragmatic, as opposed to abdominal breathing, care being taken to see that the abdomen is retracted at least as high as the navel. A point of vantage is thus given for the diaphragm, the result being that the singer will gradually cease to push out the notes from the throat, the breathing will come naturally and freely, and there will be no waste of air.

DR. EDWARD GRAY: The views of Holbrook Curtis are now being appreciated and the voices of singers, profiting by them, are getting finer and purer tones. The paper clearly shows that some pathological conditions we are called upon to treat are caused by improper use of the voice. The stretched membrane in laboratory study has given valuable results.

DR. D. A. HODGHEAD: This question has been a special study of mine for years, and I am glad to see it taken up by medical men. It should be studied both from theoretical and practical standpoints. When I began the study of music, the first thing I noticed was the confusion of methods. Every teacher was a law unto himself. I have never yet seen teachers agree. Vocal music has been taught from an empirical standpoint. We should reduce it to a science and study it medically from an anatomical and physiological aspect. There is a wrong idea as to rest of the voice. When a man first rides a bicycle he has much bodily soreness. This may remain for days. If he rides again at the end of a week he will be as sore as ever, but if he continues riding every day the soreness will at last leave and will never return. This rule applies to the use of the vocal cords, except in pathological conditions. Clergymen and public speakers make a mistake in not having previous vocal culture. They need cultivation of the voice just as an opera singer.

DR. C. G. KUHLMAN: The author does not mention congenital conditions and nervous influences, that play so important a role in phonation.

DR. DONALDSON: There are no nerve influences that produce these vocal changes. The same may be said of hereditary influences.

Dermoid Cysts.—DR. E. E. KELLY and DR. J. H. BARBAT exhibited specimens of dermoid cysts, Dr. Kelly giving the history of the case as follows: Patient 42 years of age, unmarried; six years ago menstruation became painful with lessened flow. This was accompanied by pain on the right side so severe that she was treated at different times in Oakland and Alameda for catarrh of the womb, a tumor being recognized on the right side. Three weeks ago she came to the speaker, who found a tumor the size of a fist on the left side. Dr. F. B. Carpenter, who saw the case, felt a hard substance in the lower part of the tumor and thought it was a dermoid cyst. Patient was operated upon a week ago and her recovery has progressed uneventfully. The tumor contained 12 ounces of a fatty cheesy material, but no bones, hair, or teeth.

SAN FRANCISCO MEDICO-CHIRURGICAL SOCIETY.

Regular Meeting, November 2, 1896.

R. L. RIGDON, M.D., in the Chair.

Election of Officers.—The following were elected officers for the ensuing half year:

President	G. W. BURK.
Vice-President	G. E. BUSHNELL.
Committee of Management	E. CALDERON, F. B. CARPENTER.

Fracture of Humerus, with Fracture of Six Costal Cartilages.—DR. W. F. FINNIE presented a case of fracture of the left humerus in the middle third, with fracture of the first six left costal cartilages. The subject, a man aged about 30 years, had been thrown from the front part of a moving street car as it turned a corner. He fell face downward, and was probably struck by the rear end of the car. How the costal fracture took place it is difficult to understand, for the clavicle was uninjured. The case was presented because of the comparative rarity of so extensive and peculiar a costal fracture. The fractures of the cartilages were nearly in a straight line, and extended from about one inch to the left of the edge of the sternum above to about two inches from the left edge below.

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Fracture of External Condyle of Humerus.—DR. FINNIE also presented a boy, the subject of external condyloid of fracture of the right humerus. The fracture was an exceedingly difficult one to keep in place. It was put up in the straight position, and beginning with the second day, passive motion was practised. The bone fragment being fixed by the left hand as securely as possible the elbow-joint was bent until the fingers of the boy's hand touched the back of his neck. This was done once daily for about 8 months. At first the fragment moved, but gradually it became less movable, and, finally, fixed. At present there is a large callus over the external condyle, the arm is almost straight when extended. There is considerable deformity, but the boy has a very useful arm; the test motion, buttoning his collar behind his neck, he is able to perform in a satisfactory manner.

Dr. L. C. Lane: External condyloid fracture is probably the most simple fracture with which we have to deal. I am sure that the straight position is the best by far for this fracture. The flexed position is not new. It is an old position, as old as Hippocrates, for he describes it. Nevertheless, experience has taught me the advantage of the straight position. The olecranon fossa is saved from deposit of callus, and thus extension, almost complete extension, is made possible. Passive motion is usually overdone. If a joint be moved but once, the object of passive motion is secured and very little irritation is caused; but if more than one excursion be made it causes irritation, more callus is thrown out, and greater deformity is the result. One bending of the joint once or twice a day is ample motion.

Dr. G. B. Somers: It is my conviction that no one position can wisely be applied to all fractures about the elbow joint. If the fracture extends into the joint, then, by all means, the straight position should be the one selected, but if the fracture does not involve the joint, I can see no reason why the semi-flexed position should not be used. That position should be selected which best holds the fragments in their place.

Dr. —— Gray read, by request, a paper entitled "Conservative Treatment of Recent Injuries of the Extremities," by Professor Plücker, of Cologne, which had been translated by Dr. T. L. Meinhard.

Dr. A. E. Brune mentioned a case of severe injury to the foot, which he had treated several years ago, and in which amputation seemed imperative. The injured member was placed in an improvised tank, with inlet and outlet tubes. A solution of chlorinated lime was used as an antiseptic. The water was frequently changed, and the case ended most satisfactorily, the patient having a useful foot.

Exfoliating Dermatitis.—**Dr. W. F. Finnie** reported 2 cases of exfoliating dermatitis, starting, apparently, in an injury to the end of the finger, and spreading to adjoining fingers. The spreading did not stop until the injury healed He had had a similar experience in another part of the body. A man came complaining of itching about the scrotum. Examination showed a fistula of the rectum. Patient refused operation, but consented to have the fistula dilated and curetted. This was done. Soon the patient came back, with his buttocks ablaze with an aurora borealis of small blisters. Under sedative treatment, the eruption and exfoliation ceased as the fistula closed. After a short time the fistula reopened, the patient returned, the former treatment was repeated, and the skin conditions came back. As the fistula again closed the rash disappeared.

Dr. A. E. Brune: The eruption and exfoliation was not due to a nervous influence caused by the injury, but by the dressings. They are examples of idiosyncrasy, and belong to the class of eruptions caused rarely by iodoform, corrosive sublimate, belladonna, arnica, etc.

Dr. —— Thomas mentioned a case of severe injury to the hands, in which there seemed no choice but amputation. The patient declined all treatment, and the wound was left to nature, who made a very good job of it, and the patient now can use the hand fairly well.

SAN JOAQUIN VALLEY MEDICAL SOCIETY.

First Semi-annual Meeting held at Fresno, October 27 and 28, 1896.

First Day—Tuesday, October 27—Morning Session.

The first semi-annual meeting of the San Joaquin Valley Medical Society was held at Masonic Hall, Fresno, October 27th and 28th, 1896, the Society being called to order by the President, L. E. Felton, of Hanford.

Address of Welcome.—E. C. DUNN, of Fresno, on behalf of the Fresno County Medical Society, delivered a brief address. In welcoming the visitors, he alluded to the foundation of the Society, at Fresno, six months before, mentioning the progress that had been made. The prospects for a good meeting were excellent, as ample material had been provided for debate. The attendance from points outside the city was not as large as it might have been, but he expected that later in the session there would be a large addition to the visitors.

President's Address.—THE PRESIDENT, L. E. FELTON, of Hanford, then delivered an address [published at page 727] on the subject of "The Relation of the General Practitioner to Medical Societies."

Therapeutics of Diseases of Children.—This was the title of a paper which, according to programme, was to have been read by W. H. MILLER, of Hanford. The doctor, however, was not able to be present, and as his paper was not in the hands of the Secretary, THE PRESIDENT, having explained Dr. Miller's absence, suggested that the general subject be discussed by the Society, as it was an eminently practical one.

DR. CHESTER ROWELL, of Fresno: I believe that children are as amenable to treatment as grown people. I believe, moreover, that, speaking broadly, there are about as many killed by medicine as by disease. I believe that in no part of medical practice is there as much carelessness and as much criminality as in the indiscriminate and careless administration of drugs to children. In the majority of cases, children will right themselves, if let alone, and if attention be paid to diet and certain hygienic measures. In the specific troubles of little children, as measles and scarlet fever, it has been my custom to give no medicine whatever; I have scarcely given any in twenty-five years. In the bowel troubles of children I believe that more is accomplished by diet than by medication. I believe in using opium with little children. That it is borne well by them there is no question. I believe, however, in the use of as little medicine as possible. The free use of water and careful selection of diet accomplishes good results.

DR. A. J. PEDLAR, of Fresno: Dr. Rowell has said little children suffer from too much medication and that therapeutics in diseases of children is frequently overdone. Why is it true that we fail to get prompt results? Simply because we regard a child, of say 10 years, too much as a machine; that we, as practitioners, approach a child and from his appearance conclude he has measles and does not want any medicine, and, therefore, do not give any. The failure on the part of practitioners in the treatment of children is due to the fact that they do not study them. It requires deeper thought in these cases than in the average case in adults. This is the main reason why we fail in the therapeutics of children. I believe that we often fail in our efforts in diseases of children for the reason that we sometimes persist beyond what is really the critical point in the administration of drugs, at the expense of vitality, and the little sufferer gets medicine whether he wants it or not. We make these mistakes in trying to swab out the throats in diphtheria. These applications should be made every hour and a half. Too frequent applications I do not believe in if you have to do any fighting. We should try and keep intact the forces that we already have. Diseases of children, clinically studied, require closer observation and more expenditure of time and tact than those of adults, and where this is honestly carried out, the diseases of childhood will be more successfully treated.

DR. T. D. MEUX, of Fresno: The most important point in the treatment of children in crowded houses in towns is sunlight and warm flannel, and with very little medicine they will improve day after day, and are restored to perfect health, with proper care and hygienic surroundings.

DR. G. H. AIKEN, of Fresno: While over-dosing is a serious error, over-feeding is one no less serious, and it is something that not only the parents neglect, but also the physician, in all of the acute diseases and especially in intestinal troubles. The proper attention in regard to the alimentary canal, digestion, and assimilation, and the elimination of effete matter, is one thing about which practitioners are neglectful. The use of large doses for children is a serious matter. The average dose is too large and often too nauseous. The homeopaths frequently pay more attention to the hygienic surroundings of the patient, and use less medicine than physicians.

Dr. N. P. Duncan, of Hanford: I believe in palatable medicine for children. Great harm is done with nauseous medicine in diphtheria and in all other diseases. The medicine should not only be palatable, but should also be administered in medium doses. Therapeutics, as taught, places the dosage for children too high. I believe in giving small doses, frequently repeated. I think the homeopaths succeed by giving small doses. In spasmodic croup I used to give an emetic, but recently I have found a remedy that is more efficacious, and that seems to act as a specific in that disease. It consists of 3 drops of tincture of iodine in a glass of water, giving a teaspoonful every few minutes. I have used it in a dozen cases or more with good results.

Dr. W. N. Sherman, of Merced: In defence of the regular profession I wish to say that, as a body, we are as capable of furnishing proper medicine for children as any other body of professional men. We have our medicines put up in the form of granules similar to those used by the homeopaths. They are palatable and very effective. We have the methods of fumigation and of spraying in diseases of the throat and nasal passages, and we have the use of hot and cold water, and with sufficient attention and the frequent use of these remedies the majority of cases will recover. Too little attention is paid to hygienic surroundings.

AFTERNOON SESSION.

Skull Fractures.—Dr. F. H. Lay, of Fresno, presented a paper upon this subject. He said: Fractures of the skull are of special interest to the surgeon because of the serious complications presented in many cases. These, if promptly and skilfully treated, redounded to the credit of the surgeon, but when neglected were often followed by the death of the patient. No injury to the head, however slight to outward appearance, should fail to receive the closest scrutiny. The hidden fracture, undiscovered, may not immediately give rise to serious symptoms until at a subsequent period, when operative interference may prove too late to effect a cure. Cases have occurred in which, without fracture or depression of the external table, the internal or vitreous plate, has been fractured and depressed. In all cases where a severe blow has been received upon the head and where fracture is strongly suspected, though the existing signs are negative, it is safest to make an exploratory incision down to the bone. The dangers from fracture were: (1) Compression from depressed bone or from hemorrhage. (2) Meningitis. (3) Encephalitis from laceration and infection of the brain itself. Regarding treatment in simple fracture, the first question to determine is the extent of damage to the inner table. In view of the fact that with a simple fracture of the outer table the vitreous plate is often badly shattered and depressed, it has been advised to open the skull in every case regardless of the absence of symptoms. This view is supported by many good authorities. In punctured fractures it is a fixed rule to trephine at once, removing the punctured portion of the bone, if it be small. Fractures of the base are rarely amenable to treatment. In operative *technique* the curved incision of the scalp is preferable to the crucial, as affording a freer field of operation. In opening the skull, the trephine, chisels or circular saw are used. With the chisel and mallet, only light blows should be struck, heavier ones having caused subdural hemorrhages. On reaching the diploe with a trephine, the external plate can be removed, thus permitting an inspection of the internal table without opening the skull. The brain is very susceptible to inflammation from contact with any irritating substance. Antiseptics must therefore be used guardedly. Hemorrhage is best controlled by packing with gauze, which can be left in an aseptic wound for several days. The speaker closed his paper by briefly reporting four cases of cranial fracture of different varieties that he had treated, and two of which had recovered.

Dr. J. B. Rosson, of Tulare: From what I have seen in these cases in which there was a lack of that boldness and judgment which are the chief characteristics of the successful surgeon, I am inclined to think that lives have been sacrificed by the timidity of the operator. I think that all cases of fracture of the skull, where there is no laceration of the brain or rupture of the cerebral vessels, can be saved, and that many cases, in which there are lesions of the brain and some of its vessels, may be saved by an operation, when, without it, life would be lost. When I am called to a case in which I am certain the external table alone is involved, and that there is no damage to the meninges or cerebral vessels, I generally do nothing; but if I find both tables broken, so that there is a marked depression, I invariably trephine and elevate the depressed portion; or, if the parts are badly shattered, I remove the fractured part in its entirety. I think it is much safer to remove all the shattered portions of bone which, if left, might necrose, than to leave them to necrose and kill the patient by poisoning his blood, or by the compression which might result from an effusion produced by meningitis following necrosis. I am inclined to think, also, that when the shattered bones are left. even if they should unite, epilepsy is more apt to result on account of the formation of callus, and consequent pressure upon the cerebral tissues. Every case of fracture of the skull in which the internal table is involved, deserves our most earnest attention, and I do not think that many of these cases should be left to nature alone. There are cases in which a simple depressson of a considerable portion of the skull resulted in recovery without an operation and without any apparently bad results, but a seemingly simple depression sometimes results in the death of the patient, because of damage to the meninges and brain, by spiculæ of bone, which are broken from the internal table and driven into the cerebral substance. Some of these cases that recover become the victims of epilepsy afterwards. This could be prevented by taking out the entire depressed portion in the beginning much more easily than it can be cured by operation after its development. Sometimes the epilepsy continues after the depressed portion has been removed, especially if the fits have developed before you operate. It is therefore better to operate at the time of the injury. A depression which is permitted to exist for a considerable length of time may produce a lesion of the brain which no operation will relieve. In all cases in which I have removed the fractured bones, and in which the patients recovered from the injury, there has been no epilepsy. [The speaker then reported several cases of fracture of the skull occurring in his own practice and in that of other surgeons.] He said: I prefer the horseshoe incision to the crucial in those cases of fracture of the skull in which the scalp is not injured, as I think it heals more readily. I also use drainage if there is considerable damage to the cerebrum or its coats, which might result in oozing. Aseptic catgut or horse hair is the material I generally employ.

DR P. N. RUSSELL, of Fresno: As regards fractures of the base of the skull, statistics show that a small percentage of recoveries has been attained. It has been the rule in regard to treatment that very little can be accomplished if there is fracture through the base.

DR. LAY, of Fresno: As regards epilepsy from fractures of the skull, when once established, the removal of depressed bone or of cicatricial tissue pressing on the brain, is not usually successful. According to recent statistics only 3 per cent. have been relieved. Immediate operation should be sought in all cases.

DR. G. A. HARE, of Fresno, mentioned the case of a boy, 10 years old, who was kicked by a horse. On examination, a slight swelling of the muscular portion of the scalp, over the temporal bone and back of the ear, was observed. No brain symptoms could be recognized. Upon making an incision, a spicula of bone, about three-quarters of an inch in length, was found imbedded in the brain. The spicula was removed, the wound closed, and in eight days the boy went to school. His experience had taught him that is was safer to operate to get information than to treat skull injuries as incipient matters.

Static Electricity as an Aid in Locating Diseases.—M. D. L. ALLEN, of Delano, presented a paper upon this subject. He said: Static electricity holds an important place as a diagnostic agent. With it we are enabled to locate the exact region from whence many troubles that are otherwise difficult to find, arise. The class of cases in which diagnosis by static electricity is applicable, are the chronic latent diseases: (1) Chronic nervous disorders of abdominal origin. (2) Chronic spinal affections disturbing the equilibrium of the sensory and motor nerves. (5) Diseases where there are localized accumulations of foreign matter. To prepare the patient for examination, free the body from damp clothing and all metallic substances. Have him clothed in some light woolen garments, place him on an insulated stool, and charge him with positive electricity for 5 or 10 minutes. The time to be consumed in charging depends on the amount of foreign matter with which the patient is encumbered. When he is well charged, and with a mild current still flowing, go over the body carefully with the ends of the fingers. In doing so, give the fingers a vibratory motion so as to produce a fine indirect spark, and you will observe three conditions: (1) Where there are healthy tissues there is a gentle and rather pleasant pricking sensation. (2) Over a chronic accumulation of foreign matter, however small, a diminution in the strength of the current will be experienced in proportion to the accumulation in the parts. The tissues that convey the current seem to be entirely polarized. (3) A response to the current similar to that found in the healthy tissue, except that the discharge of the current is painful. This last seems to accompany accumulations, inflammatory in nature, giving less response than healthy tissue, and, with added pain. Static electricity as a diagnostic agent, unlike galvanic and faradic electricity, seems not to depend upon certain conditions and regions of the nervous system. It does not merely follow the channels of circulation, but penetrates directly into all the organs and tissues of the body, accumulating in various quantities in the favored parts, polarizing the tissue whatever its structure. The speaker said he had found by comparison that static electricity is unlike galvanic and faradic in its law of anodal and cathodal opening and closing contractions, but that it is governed by any foreign matter that will obstruct the flow of the current. The continued use of the current over the affected parts usually dissipates the polarized condition and restores them to their normal state.

Dr. W. N. Sherman, of Merced: I am absolutely without experience in this application of static electricity, although I have used it a great deal in a great many diseases of nervous origin. I had hoped the paper would treat more of the therapeutic application of static electricity than it has. There is a very wide field for discussion on that subject, and one that is particularly interesting to me, because I have had a good deal of experience with it and some very marvelous results. There is nothing in relation to the use of this current in diagnosis in the text-books. It is the first time I have ever seen or heard of it being used for this purpose. In many forms of nervous diseases it is a marvelous agent, particularly in hysterical neurasthenia, and in the many forms of neuralgia.

Dr. G. A. Hare, of Fresno: I think the author has got diagnosis down to a pretty fine point, but I am inclined to doubt it as being correct. I would like to have the doctor explain how he can determine by the passage of the current whether certain parts are diseased or not—how he can determine the area, or how he can tell there is an accumulation of foreign matter.

Dr. Allen, of Delano: My position is that a diseased condition takes place in the tissues by the process of fermentation and from gases accumulating in the canal and under pressure, as much pressure as that produed by gas in a beer bottle. Gas will rise up and go downward. Gas will form in the alimentary canal and go upward through the tissues, and where it lodges it produces polarization; the tissues become loaded with this waste matter; they are in the same condition as a wire in a battery from grease, or anything that will polarize. My observation has been that, with the patient well charged, by running the fingers over the body you will find a very fine prickling sensation in healthy tissue, with a light current, and where the tissue is diseased no current or sensation. Wherever you have a great deal of accumulation it takes an increased amount of current—sometimes a great deal of current—to produce the sensation. I have been using this method a great many years. I have now under my care a patient who fell from a horse eight years ago, which resulted in loss of sensation from a portion of the arms, which has continued ever since. I place the patient on an insulated stool, and charge him positively (it makes no difference which pole you charge with), when he has a slight prickling sensation in the healthy tissue.

Dr. Sherman, of Merced: The reason I did not speak more freely upon this subject was because I did not understand this theory, and it did not seem to me to be a rational theory. The principles are new and peculiar, and they do not seem to coincide with the natural laws governing electric currents as applied to the human body. This same influence (diseased tissue) is not a barrier to the passage of a low tension current; then why should it present resistance to a high tension current? That certain areas of the human body become polarized by disease seems to me almost absurd, but for the sake of argument I shall not deny its possibility. It is claimed that when the hand is passed over the diseased surface of the patient's body, the sensation of the discharge immediately ceases, and is observed by both patient and physician. If this were true, the tissues must become dielectric and interpose an impassable barrier to the passage of the current. If the patient be heavily charged and the stool well insulated, even his clothing might be sufficiently conductive to allow a spark over the diseased surface of his body, and this would destroy the theory. But the author says the subject must be mildly charged. Now, the human body, especially the skin, is a poor conductor of electricity; the normal skin is practically dielectric, but the fluids are conductors, and this is a favorable combination to transmit the spark current. As the doctor suggests in his paper, some change in the cells, the result of disease, might render the tissues more resistant, but hardly to the extent of a dielectric. The only fair way to test this theory would be by actual experiment with one patient and several physicians, either upon the skin or with some close-fitting clothing upon the patient's body and a uniform speed of the machine. Other physicians, even with practice, might not be able to get the same results that Dr. Allen would obtain.

SECOND DAY—WEDNESDAY, OCTOBER 28—MORNING SESSION.

Alcoholic Stimulation in Disease.—W. T. MAUPIN, of Fresno. read a paper upon this subject, in which he deprecated the excessive use of stimulants, while acknowledging their judicious employment in certain cases to be advantageous.

DR. T. W. PENDERGRASS, of Visalia: In the main, I agree with Dr. Maupin in his views upon the subject. I think that alcohol is very much abused. I scarcely ever give it. I believe that there are other agents that fill the place that is being occupied by alcohol, and very much better. I scarcely regard alcohol as a stimulant. I believe it is more of an irritant. It is true that the system will respond to its irritating effect, and I think that is all it produces. You may elevate the vitality of the system through the irritating influence of alcohol, but at the same time, when it has passed away, the system is left in a lower condition. You may keep the system up with it for awhile, but it will succumb to its influence, and then it is worse off in fact than when its use was commenced. As I said before, I never use it; I am opposed to it, and when we look abroad at the terrible influence and the wrecks that it produces, it seems to me that this view of the subject ought to deter the medical profession from using it.

DR. G. H. AIKEN, of Fresno, said: My experience is that the judicious use of alcohol, especially in those diseases in which there is great depression, in all conditions in which the system is seriously affected and the vitality lowered, and in many chronic diseases, is desirable. There is no doubt in my mind that there is great abuse in the use of it. It should never be carried to the point of stimulation. I believe, in septicemia and in grave prostrating diseases like diphtheria, that it is of great service. I am so much impressed with the importance of the use of alcohol, especially in diphtheria, that if only allowed one remedy, internally, I would take alcohol. In many other conditions in which there is a blood poisoning it is surprising to find to what extent a patient will take alcohol and not feel it. I remember one case of diphtheria of a malignant nature, in a little boy 12 years of age, in which we gave two tablespoonfuls every two hours, and afterward one, for a long time. This would intoxicate an adult, but it had no effect whatever on this child. I believe it frequently makes up that in which nature is deficient, especially when given in conjunction with food, as in the form of egg-nog. It bridges the patient over the most critical period, and often saves life. In this country we are less in the habit of prescribing stimulants than abroad. In England and Germany they almost universally prescribe light wines and beers in convalescence, and. while there are a great many opposed to it, yet I believe the judicious use of alcohol is of great service in the treatment of disease. I remember a case, while in the service, which forced this more especially upon me: We were at Fredericksburg in the winter of '62, where we had very few hospital stores. Our lieutenant was taken with a severe type of typhoid fever, and was in a semi-conscious condition for about two weeks, and the only food he took was alcohol. He was bridged over without any food except whisky or brandy, I forget which. His bowel trouble was such that he could not use hardtack. I believe it is a germicide to a certain extent—it neutralizes the poison. I believe that, especially in the treatment of women, we should be cautious in giving stimulants.

DR. ST. G. L. HOPKINS, of Fresno: I agree with Dr. Aiken in his views in regard to giving stimulants. I can say that in my own case, when suffering from diphtheria, I was kept alive and saved by brandy. I was allowed two bottles every two or three days. If used at the proper time it is the very best remedy we have. I have seen it used in the swamps, where you have fever, when the pulse is scarcely perceptible and the heart's action very weak. In those cases nothing on earth is as good as alcohol.

DR. A. J. PEDLAR, of Fresno: I was extremely anxious to hear this paper read, as we have this matter under discussion in our County Society. I think there can be no question that the views of the medical profession in America have undergone considerable change in ten years as to the therapeutic value of alcohol. Ten years ago, and for some time previous, I was as enthusiastic as to its merits as Dr. Aiken, and I agree with him yet on some lines as to its use, but I do not use it as I once did. That it does occupy a place in therapeutics there is no doubt, and there is no doubt as to the indiscriminate use made of it, and the consequent abuse resulting therefrom I have given in this town, to a boy 15 years of age, 20 ounces in 24 hours, and kept it up for four or five days without any symptoms whatever of intoxication. This was a case of typhoid fever, where there was complete loss of consciousness and absolute indifference to all surroundings, and no vital force, for ten days and nights; I believe that alcohol saved this patient. I believe, as Dr. Aiken says, it bridged the patient over when nothing else could have held the vital powers up. It is true that alcohol given for a time and in considerable quantities, and suddenly omitted from treatment, will allow the patient to relax into a lower state. I should not withdraw it too soon.

DR. M. D. L. ALLEN, of Delano: If I should see any person fall over a great precipice, where I could not save him in any other manner, I would put a rope around his neck, and that is my position in regard to alcohol. Once in a while in my practice, when the individual gets so low, I have to take chances of breaking his neck. I use hot water in diphtheria and typhoid fever, and I find my success is better than when I use alcohol. I give them water at 115° F. and you will find the same or better results. I start in with about eight ounces of water to an adult, at 115° F. and give it as fast as you can get it down, a spoonful at a time. I repeat this every 15 minutes for 4 consecutive hours.

DR D. H. TROWBRIDGE, of Fowler: I used to give whisky in some cases I remember a case of typhoid fever where I think the patient owed his life to stimulation from alcohol. I think where we get results from alcohol we might get the same results from strychnine or from a hypodermic injection of ether or some other stimulant. I think in a great many cases in which alcohol is used we could get the same results from strychnine, digitalis, or chloroform. I do not use alcohol as much now as when I first began to practice.

DR. T. W. PENDERGRASS, of Visalia: When I have a case in which the powers are going, instead of giving alcohol, I give strychnine, digitalis, or glonoin, and I believe I get better results from this than I could from alcohol. I have abandoned its use altogether.

DR. G. A. HARE, of Fresno: At the present time the tendency is against the use of alcohol. Dr. Allen says he uses hot water and gets a stimulating effect. If you take cold water and sip it you will get the same effect on the heart as you do from alcohol. It is not the alcohol in the blood that stimulates the heart, and it is folly for us to continue in a practice simply because it was accepted by our forefathers. The idea that alcohol has any action as a stimulant is one of tradition, and is not based upon sound judgment. At the meeting of the American Medical Association, last year, there were a number of papers on this subject. There were but one or two dissenting voices in the discussion, and from the sentiments expressed, there was not one upheld the use of alcohol. Clinical experience does not amount to much unless based on sound principles. It is a fact that alcohol does stimulate digestion, in a certain sense, but, as a rule, those who use it to any extent are dyspeptics, and will bear disease or surgical operations badly. The increased digestion when you take alcohol is due to the stomach pouring out its secretions to protect itself; if you dilute the alcohol you do not get the same result.

DR. TROWBRIDGE, of Fowler: Partly as food alcohol is good, and upon certain tissues it has an effect for the time. It is not burned but eliminated, and a small amount will saturate the system. Alcohol will sustain and will take the place of food, and it will lessen the amount of urea and carbon dioxide eliminated.

DR. AIKEN, of Fresno: Alcohol, as has been proven by experience, lessens tissue waste and, therefore, we have less to eliminate. It stimulates functional activity. Suppose a patient is moribund and the pulse weak and fluttering, by giving stimulants you strengthen the circulation I have seen many cases in which life was hanging in the balance from disease, and in these the patient was tided over by the use of alcohol. I believe it could be shown that whisky has saved more lives than all the drugs put together.

Dr. Pedlar, of Fresno: You cannot accomplish anything by sipping hot water. The Germans sip beer and they do not get drunk, when if they drank half the quantity in a small space of time they would have to be dragged out. They take it slowly and do not get the intoxicating effect, and they are the healthiest people on earth.

Dr. C J. Miner, of Fresno: Dr. Hare's theories appeal to my sympathies very strongly. I hope his theory is true. When I go home, instead of taking a cocktail I shall sip a glass a water.

Dr. I. S. Eshleman: I notice one thing that has not been touched upon here, and that is that surrounding circumstances have something to do with the necessity for stimulants. Before the war we required no stimulants. In Philadelphia, at that time, the profession were opposed to alcohol, but after the war physicians had to give stimulants. Under circumstances where people are excited, they do not need stimulants, but after the war we had to stop depressing remedies and give stimulants.

Pathology and Treatment of Indolent Ulcers.—P. N. Russell, of Fresno, after describing the pathology of the ordinary indolent ulcer and reviewing its symptoms as the lesion generally presents, said: Anything which produces injury, irritation, or friction, may cause these ulcers. They are frequently associated with varicose veins. In treating the ulcer, the first requirement necessary to induce healing is to arrest the disintegration, and next, to make the ulcer assume a clean and healthy granulating surface. Support of the circulation was an important point. For this purpose he frequently curetted the surface and sometimes made radiating incisions through the indurated edges. After thoroughly cleansing the surface he next disinfected the cavity and then applied a simple ointment to the skin for a considerable distance around the ulcer, filling the excavation with iodoform. Over this he applied a piece of guttapercha tissue, in which numerous holes had been punched, and then a rubber bandage. This he regarded as the most important part of the treatment. It was applied carefully, including the foot, and going above the ulcer. Each case should be dressed, according to its condition, from every day to twice a week. The rubber bandage was removed on going to bed and reapplied on rising. This treatment was sometimes supplemented with an occasional mopping out of the ulcerated surface with hydrogen peroxide (Marchand's). In addition to local measures, the general condition should carefully be looked after, constitutional treatment being given if necessary.

Dr. G. H. Aiken, of Fresno: The general outline of the author's treatment is excellent. What we have to do is to convert the unhealthy, diseased condition to that of healthy tissue. Aside from that, when accomplished, we may have a large denuded surface requiring epithelium and new skin. How shall we best achieve this? I have tried several methods with bandaging and antiseptic dressings, but recently, with a severe and indolent ulcer from varicose veins, I adopted the following plan: The ulcer was about the size of a silver dollar, of a gray, dirty color, with indurated edges. I cleansed the parts with peroxide of hydrogen (Marchand's), which I find to be most effectual in destroying these necrosed conditions, and then dusted the surface with iodoform until it became a healthy granulating surface. How shall we heal these ulcers rapidly? I have found pyoktannin to be very effectual. I touch the whole surface with it, then apply white vaseline with campho phénique, and over that iodoform gauze, and perhaps a little absorbent cotton, then bandage from the foot to the knee with an ordinary bandage. I allow the dressing to remain three or four days. It is astonishing to see the rapidity of cicatrization under the treatment. Each time when dressing, I apply the blue pencil.

Dr. A. J. Pedlar, of Fresno: I do not think I have found any one remedy that can be relied upon in these ulcers. In some cases I would get good results, and, with the same treatment, fail in others. I have used protonuclein with benefit in chronic ulcers. Last summer, during the extreme heat, I treated a woman upwards of 60 years of age, and weighing about 200 pounds. She was doing her own housework, and in the almost incredible short time of two weeks I healed a large ulcer of the leg, which was troubling her for about two years. I cleansed the surface with peroxide of hydrogen (Marchand's) and applied protonuclein and absorbent cotton, and bandaged above the swell of the calf. I have used it since, in the office, with good results.

Dr. E. C Dunn, of Fresno: There are two or three points that I have learned in the treatment of indolent ulcers that have not been brought up. I want to say, however, that Dr. Pedlar's remarks in regard to not finding any one line of treatment that will fit all cases, I have found from my own experience to be true. In regard to the thickened edges of indolent ulcers, I have found that painting them with tincture of iodine at each dressing produced very good results. I have also tried paring down these edges, and it seems to me that I had an added stimulation to the repair of the tissues by this process. There is one method that I have found very gratifying, that is, feeding the ulcer. It is said, and it has been demonstrated by studying the process of breaking down of the granulations, that this is due, to a great extent, to lack of nourishment of these new granulations, so that they are unable to continue repairing the tissue. In the case of an old gentleman, over 80 years of age, who had two large indolent ulcers on one leg, about the size of a silver dollar each, I used bovinine on the ulcer with the idea of nourishing these granulations, and the result was certainly remarkable. In a man of that age, whose vitality at best was not very great, I consider I had a very remarkable result from feeding the ulcers.

Dr. T. M. Hayden, of Fresno: Strapping has been used, and very effectively, in many cases. It not only promotes absorption of the thickened edges, but also changes the character of the discharge. Often, if you can put the patient to bed, use a bandage for a week or two, and do nothing but strap the ulcer, and cover it with absorbent cotton to pick up the discharge, it will heal rapidly. I have used protonuclein in four or five cases and with uniform satisfaction. The immediate effect of it seems to be in stopping the ulcerative process. Another good application is subcarbonate of bismuth. I do not like the rubber bandage; I use the ordinary cotton roller. Quite a number of these cases will not heal until you put the patient in the recumbent position. I have never found constitutional treatment to amount to anything.

The President, Dr. L. E. Felton, of Hanford: The method suggested by Dr. Hayden, by strapping, is a very old one, but he did not describe it completely. I think you will find that, in all cases of indolent ulcer resulting from varicose veins, you will readily heal your ulcer if you adopt it. It is necessary to strap in a peculiar manner. The foot should be raised and the toes thoroughly strapped. The strap should be about three-quarters of an inch in breadth and should reach from the small toe around to the joint of the large toe, and then be carried in successive strips above the ulcer. These should be left on two or three days and then removed. You will find a marked improvement after the first application. The entire limb is bandaged above the ulcer.

Dr. Hayden, of Fresno: Dr. Aiken says you want to keep the parts aseptic. I say stop the growth of the granulation tissue and I only strap the ulcer. The strapping tends to close the surface of the ulcer and stops the depth of granulation.

The President: The depth of the granulation in these cases is due to lack of circulation, which, when improved by the bandaging, causes the granulations to resist necrosis.

Dr. Aiken, of Fresno: What we aim at is to heal the ulcer in the least possible time. I believe that with pyoktannin you can heal it in one-third of the time you can with any other method.

Dr. Russell, of Fresno: I do not believe in remedies as necessities in aiding the healing process. When you convert the ulcer into a healthy granulating surface and get all that unhealthy infiltrated matter pressed out, which the bandage does, you have nothing more to do. I do not use anything on the surface to absorb the secretion. When there is a good deal of it I clean the surface every few days. The main thing is to remove the source of irritation, and to support the circulation, which promotes absorption of the edges and improves the nutrition of the parts. As regards feeding the ulcer, I would prefer to do that through the system. If you keep the system in good order it does not require any other feeding.

AFTERNOON SESSION.

Hematophilia or Hemorrhagic Diathesis.—H. ST. GEORGE HOPKINS read a paper upon this disease, which he characterized as an uncontrollable propensity to bleed upon the slightest breach of the surface. Instances of this disease are rare in any country, in comparison with their frequency in certain parts of Germany. It has been observed that the diathesis may be induced in a young and previously healthy person by deprivation of fresh air, light, and nourishing food, and by confinement in low, damp places. This commonly congenital and too often ineradicable disease occurs, equally, in males and females. The bleeding is sometimes spontaneous and at other times it may follow a wound. Clean cut wounds, as a rule, do not bleed, but when the wound begins to heal the hemorrhage sets in. The most uncontrollable hemorrhage is that from lacerated wounds. Extraction of a tooth was a common cause of death in these subjects. Ecchymoses in all parts of the body were very likely to occur. All the observations upon the nature, history, and progress of this disease may be resolved into two essential and congenital conditions: (1) An abnormal vitality of the blood. (2) The delicate construction of the capillaries. The speaker, in closing, reviewed the various treatments proposed, mentioning the fact that a full dose of opium is often of great service in arresting the oozing.

DR. C. J. MINER, of Fresno: This is a subject that is of great importance to all of us, and I think there are many present who, like myself, would scarcely know what to do under such circumstances. I would like to remind you of a case that has caused a great deal of comment in California, one that Dr. Barkan had some time ago, and of which I have heard at least a dozen times [*vide* MEDICAL TIMES, vol. viii, p. 118]. The patient was a child of prominent parents, socially. Dr. Barkan excised the tonsil without knowing it was a "bleeder," and the child died in a few hours. That case has, no doubt, done Dr. Barkan a great many thousand dollars' worth of injury, and he was not in any sense to blame.

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doing her own housework, and in the almost incredible short time of two weeks I healed a large ulcer of the leg, which was troubling her for about two years. I cleansed the surface with peroxide of hydrogen (Marchand's) and applied protonuclein and absorbent cotton, and bandaged above the swell of the calf. I have used it since, in the office, with good results.

Dr. E. C Dunn, of Fresno: There are two or three points that I have learned in the treatment of indolent ulcers that have not been brought up. I want to say, however, that Dr. Pedlar's remarks in regard to not finding any one line of treatment that will fit all cases, I have found from my own experience to be true. In regard to the thickened edges of indolent ulcers, I have found that painting them with tincture of iodine at each dressing produced very good results. I have also tried paring down these edges, and it seems to me that I had an added stimulation to the repair of the tissues by this process. There is one method that I have found very gratifying, that is, feeding the ulcer. It is said, and it has been demonstrated by studying the process of breaking down of the granulations, that this is due, to a great extent, to lack of nourishment of these new granulations, so that they are unable to continue repairing the tissue. In the case of an old gentleman, over 80 years of age, who had two large indolent ulcers on one leg, about the size of a silver dollar each, I used bovinine on the ulcer with the idea of nourishing these granulations, and the result was certainly remarkable. In a man of that age, whose vitality at best was not very great, I consider I had a very remarkable result from feeding the ulcers.

Dr. T. M. Hayden, of Fresno: Strapping has been used, and very effectively, in many cases. It not only promotes absorption of the thickened edges, but also changes the character of the discharge. Often, if you can put the patient to bed, use a bandage for a week or two, and do nothing but strap the ulcer, and cover it with absorbent cotton to pick up the discharge, it will heal rapidly. I have used protonuclein in four or five cases and with uniform satisfaction. The immediate effect of it seems to be in stopping the ulcerative process. Another good application is subcarbonate of bismuth. I do not like the rubber bandage; I use the ordinary cotton roller. Quite a number of these cases will not heal until you put the patient in the recumbent position. I have never found constitutional treatment to amount to anything.

The President, Dr. L. E. Felton, of Hanford: The method suggested by Dr. Hayden, by strapping, is a very old one, but he did not describe it completely. I think you will find that, in all cases of indolent ulcer resulting from varicose veins, you will readily heal your ulcer if you adopt it. It is necessary to strap in a peculiar manner. The foot should be raised and the toes thoroughly strapped. The strap should be about three-quarters of an inch in breadth and should reach from the small toe around to the joint of the large toe, and then be carried in successive strips above the ulcer. These should be left on two or three days and then removed. You will find a marked improvement after the first application. The entire limb is bandaged above the ulcer.

Dr. Hayden, of Fresno: Dr. Aiken says you want to keep the parts aseptic. I say stop the growth of the granulation tissue and I only strap the ulcer. The strapping tends to close the surface of the ulcer and stops the depth of granulation.

The President: The depth of the granulation in these cases is due to lack of circulation, which, when improved by the bandaging, causes the granulations to resist necrosis.

Dr. Aiken, of Fresno: What we aim at is to heal the ulcer in the least possible time. I believe that with pyoktannin you can heal it in one-third of the time you can with any other method.

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Dr. E. C. Dunn, of Fresno: We all know that nine times out of ten, when a patient consults us with any eye trouble, he comes with the eye bound up with some kind of a bandage. From my own experience I have come to the conclusion, more than once, that a bandage was injurious to the eye I was treating; but with such plain facts and statements as Dr. Miner has given us, it seems to me we need not hesitate in future, when we have these troubles to treat, to employ or not to employ a bandage. I have used a shield to protect the eye, and I have found it to be much more satisfactory than the bandage. The shield was made so it rested upon the supraorbital ridge and it gave admission to light and air, at the same time shielding the eye to a certain extent from both.

Dr. Miner, of Fresno: These are cases of very small corneal ulcers, that are often exceedingly painful; the pain is caused by the eyelids sweeping over the exposed surface. These ulcers are so minute that it requires a small lens and an oblique light to discover them. A simple protective bandage is sufficient in these cases. It is useful only in holding the lids motionless.

Treatment of Malaria.—D. H. Trowbridge, of Fowler, read a paper upon this subject. He said: Malarial diseases are divided into three great classes, namely, intermittent, remittent, and pernicious fever, the last variety being almost unknown in California. The first, or intermittent type, was by far the most common As a rule, little trouble was experienced in controlling it. The treatment he usually adopted was to give, first, a full dose, 5 to 10 grains of the mild chloride, combined with extract of colocynth, sodium bicarbonate, and quinine. This was divided into 3 to 5 pills, and one given every hour or two hours on the evening before the chill day. From 20 to 30 grains of quinine were then given in 3 or 4 doses, the last being timed so as to come about 3 or 4 hours before chill time. The quinine was continued for three days to prevent a return of the paroxysm, and the patient was then placed on a tonic containing arsenic and iron. He thought that the sulphate of iron was the best form for malarial anemia. He was a firm believer in the initial dose of mercury which he believed did more than merely unload the bowels. In patients who cannot take quinine on account of the rash it produces, he had given oil of eucalyptus in capsule, which sometimes acted very nicely. In one case of persistent chills which failed to respond to the usual treatment, Edson's aseptolin had been used with success. The most important point in the treatment of remittent fever was the time for giving the quinine. This should be early in the morning, at the time of the remission. He had sometimes met with a remittent fever resembling malaria, which yielded very readily to intestinal disinfectants. He therefore made it a rule, when the fever persisted after a few days treatment with quinine, to prescribe a mixture of bismuth and lactopeptine and sulpho-carbolate of soda or salol. This often relieved the case promptly, though, of course, it was not always successful.

Dr. I. S. Eshleman, of Fresno: I have not seen chills preceding fever in malaria here, and I have my doubts as to whether many of the cases are malaria, or whether they are caused by disorders of the liver.

Dr. Trowbridge, of Fowler: In New Orleans, as well as here, I have met with cases of intermittent fever with chills. I think these rigors are malarial when they return at stated hours. I think we have malaria here. I think a great many cases come from loaded colon and auto-inoculation Indiscretion in diet or overloading the stomach, and anything that tends to depress the system, brings on malaria.

Dr. M. D. L. Allen, of Delano: I have been practising medicine in Delano for five years, and I have yet my first case of malaria to see in California. I believe malaria is produced by heat and moisture. Wherever you have fermentation of decayed vegetable matter it will produce the phenomena of chills and fever. The treatment that will unload the colon, empty the bowels and free the system from foreign matter and act as a tonic to the nerve centers, is the remedy. I know of nothing better than quinine.

Dr. T. R. Meux, of Fresno: My first practice was in a country where we had malaria in various forms—chills and fever, intermittent and remittent fever, and what is known as bilious fever. I have seen hematuria frequently. I have never seen a case of hematuria here, and I have seen but one case of regular congestive pernicious fever. This case had come from the tule swamps. Most of the cases here require larger doses of mercury; the effect of the heat makes the organs more sluggish. I give it in broken doses. I have noticed in children it takes double the dose in a case, when under way, than it does back East, but after you get the secretions working I find no trouble. I give mercury; no quinine. In cases of remittent fever I have seen but few that did not yield in a few days.

Dr. P N. Russell, of Fresno: I have noticed a number of cases in this valley of intermittent fever where the stomach was in such condition as not to absorb quinine at all. I gave it a fair trial. As soon as I gave the quinine in solution I soon broke up the fever.

Dr. T. W. Pendergrass, of Visalia: I had a case not long since in which the fever did not run over 102° F. at any time, but every day it would come up. I first gave mild chloride of mercury to the amount of 21 grains, 7 grains at a dose. I then gave a dose of seidlitz, and then 20 grains of quinine, 5 grains at a dose, every two hours each day, but the fever persisted. He came to my office every day. Finally I gave him 60 grains of quinine, telling him to dissolve it in half a cup of coffee, and go to bed. That was the last of the fever. This is the only time I have given so much at once.

Dr. Trowbridge, of Fowler: I have seen several cases of fever accompanied by persistent bilious vomiting and a temperature ranging from 102° to 103.5° F. that resembled remittent, but was not affected by quinine. Antiseptics did better. There was no tympanites, the bowels moved regularly once a day, and the tongue was moist. In this type of fever I have used bismuth and lactopeptine, and in the continued type sodium sulpho-carbolate, and sometimes salol, with success.

Dr. W. T. Maupin, of Fresno: It is reported that it is almost impossible to live in this valley on account of malaria. This is a mistake. Most of this trouble is caused by the continued heat, producing an engorged condition of the liver. It is very seldom that I have found a case where there was a decided malarial paroxysm. I was health officer in this city for a number of years, and was disgusted with the number of men reporting malarial cases. This malaria scare has been a great injustice to this valley.

The President, Dr. L. S. Felton, of Hanford: This is a subject that ought to receive attention. The reputation of Fresno, Tulare and Kern counties is something we are not proud of. When I first came to California, I happened to be in the Santa Cruz Mountains with Prof. Allen. I told him I was going to Tulare county, and he said my family would die; they would have malaria there. I went to Tulare county, however, and I very soon learned that the trouble was not with the people, but with the physicians, and I presume it was the same way in Kern and Fresno. Nearly every person I met said he had malaria, and from the little experience I had with them, the cause was, as a rule, some gastric derangement, due to excess in eating or drinking. The type of malaria that I have seen in the Missouri valley, in Iowa and in Illinois, is different from that here; it is malignant. There is no question that we have malaria in Kings county, but not in all the cases that are so called. The sooner physicians investigate the matter, and discuss the etiology and symptoms of malaria, the sooner we will come to some conclusion as to what this condition is, and whether it is of malarial origin.

Dr. Meux, of Fresno: Two-thirds of the cases I treat are due to constipation—some irregularity in the digestive canal, and by giving something to relieve engorgement of the organs, the trouble will pass off.

Dr. Russell, of Fresno: I believe a good deal of this talk about malaria amongst physicians is due to carelessness. We have fevers we have no name for and we call them malarial

Dr. E. C. Dunn, of Fresno: A great many of these cases in this valley are termed "malaria," possibly, for want of a better name, and still malarial poisoning that is due to organic matter in the water that is drunk, is not uncommon. Now, if we stop for a moment and consider the formation of this valley, we can see that, until a well is sunk through an impermeable stratum, more or less organic matter will impregnate the water I know of instances where, by sinking the wells deeper, cases of almost continued illness in members of families recovered almost without medication. In a vineyard with which I am connected we had a well put down which was less than 50 feet deep. I went out there every two weeks and I told them the trouble was due to the water, but they did not think so. After a year's time I prevailed upon the board of trustees of our company to sink the well over a 100 feet in depth. The result was that, in the next four or five years, there was not as much sickness on that vineyard as in the first six months after the well was originally sunk. I want to take issue with Dr. Allen in regard to the cause of malaria. I understood him to say that the cause was a combination of heat and moisture. I do not believe those two factors will account for true malaria; there must be something further. I remember at Tombstone, in Arizona, in a very dry climate, at an altitude of 4,500 feet, in the dry season, when the humidity was as low as it was possible, we had, beyond any question, true cases of malaria, with the periodicity as marked as anywhere. I had a number of typho-malarial cases. Though a number of good authorities disagree with me, my experience, practice, and observation have satisfied me beyond question that there is such a disease as typho-malaria, and that it is distinct from any other. We had a larger number of those cases than we had of true and uncomplicated malaria.

DR. MAUPIN, of Fresno: The hypothesis as set forth by Dr. Allen, that malaria is the result of heat and moisture, is correct in a measure. In the cases Dr. Dunn speaks about in Arizona, he says there was heat, and there must also have been some moisture in spots. It is a question whether these cases were not the result of vegetable decomposition, such as he speaks of in the vineyard. I took this ground several years ago, that malaria is the result of vegetable decomposition.

DR. DUNN, of Fresno: At Tombstone, pure water was brought from the mountains, and it was the best I had ever drunk. To my astonishment we had these cases. This water system was very complete, with no opportunity for contamination. The source was pure, the pipes new and clean; and yet we had those cases, at that altitude and in that dry climate.

DR. I. S. ESHLEMAN, of Fresno: It might be possible that dead trees, leaves, and decomposed vegetable matter contaminated the supply. I remember once seeing leaves carried forty miles through pipes.

THE PRESIDENT, DR. FELTON, of Hanford: I am glad Dr. Dunn has called our attention to the question of water supply. There is no doubt that shallow wells cause sickness. Since artesian wells have been sunk at Hanford, there has been a decided improvement in that respect. There are over thirty people there who came from the same section of the East as myself. Not one of these has been sick, and none have had any symptoms of malaria, while two or three who located some distance from us and drank shallow well-water had cases of intermittent fever in their families. There is no question about the water supply being the cause of a great deal of malaria, and that the typhoid cases we have are due to the water. As to heat and moisture causing malaria, I do not believe it. It is necessary to have a poison that must develop in this decomposing matter. I came from a part of New York State where malaria is unknown, and while some of the most typical cases develop in the southern portion of the State, we have no malaria in the Adirondack Mountains. In the valley of the St. Lawrence, the water supply of the towns comes from the mountains where decayed vegetable matter from dead timber and accumulations of sawdust finds its way to the lakes and rivers, and yet very rarely a case of malaria develops there.

The Treatment of Pneumonia.—T. M. HAYDEN, of Fresno, in a paper upon this subject, said: His reasons for taking up what might be considered a threadbare theme, were: First, the great mortality from this disease, the death rate from which exceeded that of any other in the United States. Second, to enter a protest against the generally accepted ideas of the profession as to what constitutes pneumonia, as well as its proper management. The speaker said this was too much an age of fads in the profession, and of a thoughtless following after bacteriologists. Hare says "the treatment of croupous pneumonia must necessarily be influenced by our opinion of its causation and pathology." The speaker held that this was the true key to the situation. If accepted, this hypothesis naturally led to the idea of its microbic origin and self-limitation; yet, if this theory be correct, we must admit that the expectant plan of treatment is a failure; if not, why should there be one death in four, at the close of the nineteenth century, and only one death in ten in the first third of the century, when pneumonia was actively treated? The fact is, we forget our anatomy and fail to remember our physiology, and without these two essentials we cannot form a true appreciation of the pathology of the disease. Pneumonia is largely fatal in proportion to the amount of lung involved, though this is denied by some authors. If pneumonia be a disease of microbic origin and self-limiting, it is not susceptible of being aborted. On the other hand, such men as Flint were positive that the disease could be aborted, and the practical experience of many practitioners agreed with this. The speaker said until some of these questions are answered satisfactorily, no one ought to hold such views when on them is based the expectant plan of treatment. Having briefly reviewed the pathology of the disease, he said the rational indications for treatment were, manifestly, to remove the obstruction, relieve the distension of the right heart, and abate the fever. To relieve the general veinous system there was perhaps nothing so prompt and efficient as venesection, but this was not required in all cases. In many cases, if seen early, active diaphoresis fulfils the conditions. Drugs play only a minor part in the treatment of the earlier stages of pneumonia. Some of the coal tar derivatives may be useful, but they should be used guardedly. Dover's powder was not, in the speaker's judgment, safe in many cases on account of the obtundent effect of the opium. Veratrum he regarded as an unscientific remedy, and so was digitalis, especially when given in the earlier stages. If, notwithstanding the diaphoretic treatment, cyanosis should develop on the fifth or sixth day, he would advise venesection whether the patient be robust or weak; the bleeding to be followed by liberal alcoholic stimulation.

Dr. B. F. Day, of Reedley: I do not think that pneumonia, as stated by the author, passes through its course uninfluenced by treatment. The method that I adopt is the ordinary one in this disease. Place the patient in the most favorable condition and modify the symptoms as they arise.

Dr. M. D. L. Allen, of Delano: It has been my practice for several years to abort the disease if possible in the first stage, that of engorgement of the lung, by inducing profuse diaphoresis. I used to succeed in this by the free use of diuretics and the extract of joborandi until free diaphoresis ensued.

Dr. G. A. Hare, of Fresno: I have a good deal of faith in veratrum and have had good results from it. Another method that I have found useful is the moist compress. In cases with hacking cough, I have had immediate relief from large poultices going well down over the base of the lung.

Dr. E. C. Dunn, of Fresno: At the high altitude of Tombstone we have a large number of cases of pneumonia that are very severe and rapid in their effects. I have seen cases where the patient died within 13 hours from the time of the chill. I believe pneumonia can be aborted by the use of diaphoretics, in the incipiency of the disease. I have employed pilocarpine with good success, and I believe its use resulted in the abortion of a large number of cases of pneumonia. I use the third of a grain hypodermically. It is very seldom I see a case of pneumonia here.

Dr. W. T. Maupin, of Fresno: I agree with the author fully as to the pathology of the disease, but he condemned my standby in pneumonia, and I must take issue with him. The late Dr. Gross tells us in treating pneumonia to bandage the lungs with opium, and that it is the treatment. I started out in life by adopting his suggestions, and while Dr. Hayden condemns Dover's powder, I think it is excellent. No line of treatment ever brought before the profession is so satisfactory as the opium treatment in pneumonia.

Dr. I. S. Eshleman, of Fresno: I think blood letting, in certain cases, is very good. I have practised it in '51. At that time every physician carried his lancet, but shortly after the practice was abandoned. Bleed the patient freely in the beginning, before you reach the typhoid stage, and the patient becomes depressed. Commence stimulating the next morning, and if you find about two quarts of bloody mucus it shows you have taken it in the first stage. Stimulate and keep the heart going. When you take away a great quantity of blood and then stimulate the heart and make it propel the remainder, the patient will come out all right.

Dr. Hayden, of Fresno: I was well aware that I was treading on Dr. Maupin's toes, but I cannot endorse the use of Dover's powder in pneumonia. I think it may be used very successfully in the early stages, before there is any exudation to fill up the air cells.

Election of Secretary.—**C. A. Rodgers**, of Bakersfield, the Secretary of the Society, tendered his resignation from that position. The resignation was accepted, and **E. C. Dunn**, of Fresno, the Assistant Secretory, was elect to fill the vacancy. **C. J. Miner**, of Fresno, was duly elected Assistant Secretary.

The Society then formally adjourned to meet in Fresno on the second Tuesday in March, 1897.

New Members.—At the different sessions the following were duly elected members of the Society:

L. H. Coe, N. P. Duncan, T. W. Pendergrass.

SPECIAL CORRESPONDENCE.

GERMANY.

[FROM OUR OWN CORRESPONDENT.]

Untoward Effects of the Roentgen Rays.—Organotherapy.—A Case of Hysterical Blindness.—Duration of Physicians' Lives.—The New Tariff of Medical Fees.—Leprosy in Germany.—Reports on Anti-Diphtherin.—A Professorship of Massage.

Cases of the successful application of the Roentgen rays are still being reported on many sides, but a marked advance as regards the *technique*, or the theory of the subject, is not to be noted during the last few months. On the other hand, a case of the rays producing a detrimental effect upon the integument, as recently published by Dr. Marcuse, of Berlin, is in many respects worthy of attention, and may, therefore, be here described. A youth, aged 17, presenting a systolic murmur, but otherwise perfectly healthy, was employed as a test object for the new photography for some four weeks or more, the experiments being made once or twice a day, and the sittings lasting from five to ten minutes, and sometimes longer, when the chest was the subject of examination. The first unusual symptom noticed was a slight diffuse redness of one side of the face, accompanied by a certain amount of desquamation. The experiments, however, were not discontinued, as this disturbance was not believed to be of any importance. Later on, the affected area appeared sharply defined, reaching from the ear on to the scalp; the hairs at this part were thinned and could be easily plucked out without causing pain, being evidently degenerated—a commencing alopecia Besides, on the chest, and especially on the back, the epidermis was loosened and the derma exposed for the extent of an ordinary plate, exactly as if after a burn. Improvement was soon accomplished. This effect of the rays is in many respects curious and interesting. It should be mentioned that the heat from the Hittorf tube was never particularly intense, and that the lad always retained his clothing during the experiments, except when the chest was being examined, and then he at least kept on his shirt. A similar experience is reported by Mr. Leppin. After performing a number of experiments with the X-rays, in which he had always made use of his left hand as a test object, he noticed in a few days that the member was red and swollen, and blisters appeared on two fingers, as if from a burn. The part protected by a ring alone remained white. The application of lead lotion sufficed to remove the acuter symptoms, but after a lapse of five weeks the affected hand still appeared redder than the other and somewhat shriveled. Possibly some clue to the explanation of these phenomena may be found in certain observations made on the Alps by an English physician, Dr. Bowles, on sunburn. His experience would go to show that the direct rays of the sun are even less productive of such changes than reflected light, and that certain colors which absorb the chemically active rays (red, brown, etc.), are capable of preventing all such effects upon the skin.

Organotherapy has generally been very sceptically received in Germany; Brown-Séquard's reports on his observations with testicular juice especially met with decided disapproval, a general *schütteln des kopfes* (shaking of the head) like the answers of the mythical candidate of theology, Mr. Jobs. Other reports have not had a much better fate, and quite an excitement was aroused by Professor Kocher's announcement that a noted chemical factory, which shall be nameless, had, for an extended period, in consequence of an error of their veterinary surgeon, supplied the contents of the seminal vesicles instead of prostatic extract for the treatment of hypertrophy of the prostate. As the professor goes on to say that he knows of a number of colleagues who profess to have obtained excellent results with the preparations in question the conclusions to be drawn are really somewhat staggering.

Still the following case of tetany, cured by thyroid extract in the service of Professor Oppenheim and recorded by Dr. Levy-Dorn, is not without interest. The patient was a seamstress, who had previously presented similar symptoms and, when admitted, showed the characteristic phenomena of the disease in a very marked degree. As treatment with bromine proved ineffectual, the patient was ordered tabloids containing about 4 grains of thyroidin each. At first she took one every three days, then one a day. The result was very satisfactory, and for the last four months the patient has been able to attend to her work as well as formerly.

A similar remarkable case has been observed by Dr. Schmidt, of Wilmersdorf-Berlin, in which hysterical blindness of one eye, of nine years' duration, was cured in the space of 12 days by the exhibition of didymin tabloids. The patient was a married lady, aged 39 years. Thirteen years ago, in childbed, she had begun to suffer from attacks of neuralgia on the left side of the face and in the limbs on the same side. Convulsions, vomiting, hyperemia of the affected part of the face, and occasionaly loss of consciousness, were among the most prominent features of the attacks, which occurred about twice a week and lasted almost 24 hours each time. Nine years ago, after a similar attack in childbed, the patient, on recovering consciousness, found that she was blind in the left eye. She was treated for several months in Professor Frölich ophthalmological clinic, but for this as well as for the other symptoms, all therapeutic resources proved futile. A few months ago Dr. Schmidt placed the patient on didymin treatment, giving 3 tabloids daily, and increasing the dose by 1 tabloid every third day, until 6 *pro die* were reached. The result was very remarkable. The former attacks occurred a few times, but in quite a modified degree, and one day, on awakening after a few hours' sleep, the patient, to her surprise, discovered that she had recovered her eyesight on the diseased side. An ophthalmological examination revealed normal conditions, barring a slight scotoma, and the diagnosis is considered by the observer as beyond doubt. Further communications are promised, and will certainly be awaited with much curiosity.

In Germany, as elsewhere, it has long been accepted as proven that a medical career is one of the most arduous, and that the duration of life in the profession is considerably shorter than in other callings of a similar social standing. Statistics here have been adduced to show that medical practitioners are shorter lived by twenty years than, for instance, clergymen. In Bavaria, at least, it was a fact, that in the first half of the present century, doctors ranged about on a line with village schoolmasters in this respect. Later calculations, however, have yielded a more favorable return. In Saxony it has been found that, omitting deaths under 26 years, that is, during the most critical period of the medical career, half of the profession may be expected to reach the sixtieth, and a quarter even the seventieth year. Similar results have been obtained from a consideration of the life tables of the insurance company at Gotha, one of the oldest, largest, and best organized in the country. From these we learn that physicians exhibit an excess in mortality of 11.5 per cent. as compared with the average of other insured lives. Of course this refers, not to the profession at large, but only to picked cases accepted as favorable for insurance. Still, it may be regarded as proved, that the prospects of longevity in our calling are much improved when compared with the former state of things. Many causes combine to produce this result, among them may be mentioned improved general hygiene, a better comprehension of the manner in which infection is conveyed, more efficient means of disinfection, and, not the least important factor, more ample pecuniary resources. This latter point is especially exemplified by the figures reported from Bavaria. At the time in question, the country practitioners, especially, were particularly badly off, as they were allowed to practice only in the precise district for which they were commissioned by government, and which they were not permitted to quit except by special order. The fees were ridiculously low, and the work as onerous as it well could be. The improvement in the mortality rate has been pretty well on a par with the increase of income, a fact which, it is generally felt here, should be a motive to resist, most strenuously, all attempts at reducing the rates of payment for medical services, which have been so much in vogue during the last twenty

years, since the obligatory introduction of laborers' clubs throughout the empire.

In this respect, the tariff recently drawn up by the Reichstag is an advance in the right direction. Hitherto the Code of 1815, which has long been perfectly inadequate, was taken as the norm in cases of litigation regarding the remuneration of physicians. In future, in cases of dispute, unless the figures to be paid have been stipulated beforehand, judgment will be given according to the new table of fees, in which a pretty wide margin is left, so as to suit all, or nearly all, claims.

Leprosy, that we have hitherto been accustomed to consider almost purely with a theoretical interest, has lately acquired considerable importance from the fact that in the district of Memel, on the confines of the Russian frontier, a rather disquieting number of cases have been recognized and made public. Probably isolated cases of the disease have long existed there, but have passed, perhaps, as in Normandy and Brittany, under the names Morvan's disease, syringomyelia, etc. It is just these slightly pronounced cases which are so difficult to recognize. In the Berlin Medical Society quite a fierce controversy was engaged in by Drs. Blaschko and Brasch on the one side and Dr. E. von Bergmann on the other, anent a case of this kind. The patient was a native of Pommerania, and had lived for a long time in the Brazils, from whence he returned in a diseased condition. All signs considered, there is now hardly reason to doubt the diagnosis, and, to crown all, a few days ago it has been discovered that the wife of the patient, who had returned to Germany together with him, is suffering from a marked form of lepra tuberosa, a fact which the man had, in spite of repeated questioning, always carefully concealed, probably for fear of incurring further annoyance. As to the cases in the Memel district, Government has already taken the matter in hand and has deputed Professor Robert Koch to carry out the necessary investigations. It is intended to found a special hospital there for these patients, so as to stamp out the disease, if possible, without delay.

The reports on the antitoxin treatment of diphtheria received by the Imperial Board of Health from hospitals, etc., have been in general exceedingly favorable. For the present it has been declared unnecessary to prosecute this collective investigation further, as sufficient statistical material is now at hand.

Quite a new departure is to be recorded in the foundation of a professorship for massage at the Berlin University. This title has been conferred on Dr. Qabludowsky, originally a medical officer in the Russian army, who has done much good service in placing the subject on a rational and scientific basis. He was induced to settle in Berlin by Professor von Bergmann, in whose clinics his work has principally been carried out.

October 7th, 1896.

REVIEWS AND NOTICES.

HEMORRHOIDS AND OTHER NON-MALIGNANT RECTAL DISEASES; DIAGNOSIS AND TREATMENT. By W. P. Agnew, M.D. Third edition.

The author in the third, as in former editions, devotes a large proportion, more than one-third of his space, to a discussion of hemorrhoids and their treatment. Other non-malignant diseases of the rectum and anus are treated with more or less brevity. Aside from a special plea for the treatment of internal hemorrhoids by carbolic acid injections, the volume contains little to render it conspicuous among a large number of manuals devoted to kindred topics. While not in sympathy with the author's method of dealing with internal piles, we deem it unnecessary to engage in a controversy relative to this subject.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS. By Robert Bartholow, M.A., M.D., LL.D., Professor Emeritus of Materia Medica, General Therapeutics, and Hygiene in the Jefferson Medical College of Philadelphia. Ninth edition, revised and enlarged. New York: D. Appleton & Co. pp. 866.

This volume is so popular and so well known throughout America, that it does not require any introduction at this time; the simple fact of its having gone through nine editions in twenty years being sufficient testimony to its value. In the present edition the text has been revised wherever this was found to be necessary, and many additions have been made, especially in the description of the animal extracts and synthetical preparations which have recenlly come into prominence. We feel satisfied that this edition will maintain the merited popularity of the book.

A MANUAL OF OBSTETRICS. By W. A. Newman Dorland, M.A., M.D., Assistant Demonstrator of Obstetrics, University of Pennsylvania; Instructor in Gynecology in the Philadelphia Polyclinic, etc., with 163 illustrations in the text, and 6 full-page plates. Philadelphia: W. B. Saunders. pp. 760. Price, $2.50, net.

This is one of the Saunders' new aid series of manuals. It is certainly one of best short works on obstetrics so far written, and will be especially valuable for students. It is thoroughly up to date in its teachings, especially in pathology, and is throughout clear and scientific. We have no other short book containing so much in such concise form. The subject-matter is admirably arranged with headings and subheadings that conduce much to lucidity and also to easy reference. We not remember to have seen anywhere else such excellent tables giving points in differential diagnosis in obstetric matters, as for instance, in the diagnosis of pregnancy. There are many of these tabular presentations of the contrast between conditions that may be mistaken one for the other. The chapter on puerperal sepsis is particularly well written, presenting the subject briefly, yet clearly, and in accordance with the latest views. Altogether, the book is a welcome addition to obstetric literature.

DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM, ANUS, AND CONTIGUOUS TEXTURES. Designed for Practitioners and Students. By S. G. Gant, M.D., Professor of Diseases of the Rectum and Anus, University and Woman's Medical Colleges; Lecturer on Intestinal Diseases in the Scarritt Training School for Nurses, etc. With two chapters on "Cancer" and "Colotomy" by Herbert William Allingham, F.R.C.S., Eng., Surgeon to the Great Northern Hospital; Assistant Surgeon to St. Mark's Hospital for Diseases of the Rectum, etc. Illustrated with 16 full-page chromo-lithographic plates and 115 wood-engravings in the text. Extra cloth, $3.50 net; half Russia, gilt top, $4.50 net. pp. 400. Philadelphia: The F. A. Davis Co.

This volume will meet with a most favorable reception on the part of its readers and those particularly interested in its subject matter. It is a comprehensive, unprejudiced, and extremely impartial *resumé* of views generally entertained by reputable authorities. Its arrangement is admirable, and the author's methods of expression are specially commendable. While the general subject has been exploited very thoroughly in advance of Dr. Gant, he has succeeded in embodying certain lines of thought that will render the volume available over many of its companions. The two chapters on "Cancer" and "Colotomy," by Allingham, are a special feature and add much value to the work. The illustrations, of which there are many, are well executed, and the general appearance of the work is worthy of its subject matter.

AN AMERICAN TEXT-BOOK OF APPLIED THERAPEUTICS, for the use of Practitioners and Students. Edited by J. C. Wilson, M.D., Professor of the Practice of Medicine and of Clinical Medicine in the Jefferson Medical College; Attending Physician to the Hospital of the Jefferson Medical College, to the German Hospital, and to the Pennsylvania Hospital, Philadelphia; assisted by Augustus A. Eshner, M.D., Professor of Clinical Medicine in the Philadelphia Polyclinic; Attending Physician to the Philadelphia Hospital. Philadelphia: W. B. Saunders. pp. 1326. Price, cloth, $7; sheep, $8; half Morocco, $8.50; half Russia, $9.

We do not know of any better work on the treatment of disease than the volume now before us. Each contributor has done his work faithfully and with such ability, that it is difficult to select any one article for special mention. Danforth's remarks on croupous pneumonia are pregnant with common sense, and must commend themselves to every clinician. Laveran's monograph on malarial fever reports the results of scientific investigation in this domain, and describes the methods of treatment thereby indicated. Osler is well represented by an article on "Diseases of the Blood and the Ductless Glands," while the articles on diphtheria by Northrup, and on whooping cough by Louis Starr, are still further guarantees of the excellence of the book. We do not think that anyone who examines this volume will be disappointed in it.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At a meeting of the Board of Examiners, held October 6, 1896, the following were granted certificates to practise medicine in this State:

Wooster Beach, Los Angeles; Coll. Phys. and Surg., N. Y., Mar.,'54.
Chas. E. Boynton, San Francisco; Coll. Med., Univ. Syracuse, N. Y., June 14,'88.
W. S. Chapman, Denver, Colo.; Med. Dept. Univ. Colorado, June 4,'96.
John Westey Cline (second certificate), Santa Rosa; Bellevue Hosp. Med. Coll., N. Y., Mar. 26,'94.
Holton C. Curl, San Francisco; Iowa Coll. Phys. and Surg., Des Moines, Ia., April 6,'96.
Michael Flinn, Portland, Or.; Med. Dept. Willamette Univ., Or., Mar. 4,'72.
Wm. H. Fonner, San Francisco; Jefferson Med. Coll., Pa., Mar. 29,'84.
Lucius L. Greene, New York City; Bellevue Hosp. Med. Coll., N. Y., Mar. 23,'96.
Millard G. Hinkle, Stockton; Jefferson Med. Coll., Pa., May 15,'96.
Edward S. Howard, San Francisco; Jefferson Med. Coll., Pa., May 15,'96.
Frederic H. Hunig, Los Angeles; Bellevue Hosp. Med. Coll., N. Y., Mar. 23,'96.
T. W. Hunt, Lawrence, Kan.; Jefferson Med. Coll., Pa., May 9,'94.
Cap. C. Jones, New York City; Baltimore Med. Coll, Md., Mar. 30,'93.
Theo. Krystofovich, Cucamonga; Univ. of St. Validimir, Russia, Mar. 17,'82.
Ignatz Mayer, Guthrie, O. T.; Medico-Chirurg. Coll., Pa., May 11,'94.
John K. Morris, Los Angeles. Hosp. Coll. of Med., Ky., June 17,'91; Jefferson Med. Coll., Pa., May 9,'94.
Alfred Carl Müller, Bridgeport; Univ. Munich, Bavaria, Germany. July 7,'92.
Alexander Orr, Fair Oaks; Kentucky School of Med., Ky., June 30,'81.
A. A. Poehner, San Francisco; Med. Dept. Univ. Penn., June 7,'94.
Jules F. Roth, Los Angeles; Baltimore Univ. School of Med., Md., March 30,'92.
Helen O. Anderson, San Francisco; Med. Dept. Univ. of Cal., May 13,'96.
Henry M. Beck, San Francisco; Med. Dept. Univ. of Cal., May 13,'96.
Mary E. Botsford, San Francisco; Med. Dept. Univ. of Cal., May 13,'96.
H. J. MacCallum, Big Pine; Med. Dept. Univ. of Cal., July 13,'95.
Alfred Newman, San Francisco; Med. Dept. Univ. of Cal., May 13,'96.
Joseph Rochex, San Francisco; Med. Dept. Univ. of Cal., May 13,'96.
Florence Scott, San Francisco; Med. Dept. Univ. of Cal., May 13,'96.
George S. Holbrook, Brown's Valley; Cooper Med. Coll., Cal., Dec. 6,'94.

CHAS. C. WADSWORTH, Secretary.

Official List of Changes in the Medical Department U. S Navy (Pacific Station) from October 20, 1896, to November 20, 1896.

P. A. Surgeon C. P. Bagg, from Marine Rendezvous, San Francisco, to U. S. S. "Marion."

P. A. Surgeon Clement Biddle to Marine Rendezvous, San Francisco.

Surgeon D. O Lewis, from U. S. S. "Marion," at Panama, New Granada, on the reporting of his relief, return to his home, and then granted three months' leave.

Medical Director G. W. Woods ordered as Naval Delegate to Pan-American Medical Congress, at the City of Mexico.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (District of the Pacific) from October 20 to November 20, 1896.

Past Assistant Surgeon C. T. Peckham directed to proceed from Port Townsend, Wash., to Detroit, Mich., for duty,

Resignation of John B. Hamilton, Surgeon, accepted, to take effect November 13, 1896.

S. D. Brooks, Past Assistant Surgeon, directed to assume temporary command of Port Townsend, Wash., Quarantine during the absence of Past Assistant Surgeon W. G. Stimpson.

W. G. Stimpson, Past Assistant Surgeon, to proceed from Port Townsend, Wash., to Angel Island, Cal., Quarantine for temporary duty.

ITEMS.

Dr. A. B. McKee has removed his office from the Nucleus building to 533 Sutter street, San Francisco, Cal.

Dr. Thomas More Madden.—At the last annual meeting of the Royal University of Ireland the degree of Master in Obstetrics (*Honoris Causa*) was conferred upon Dr. Thomas More Madden, who has, in the past, been an occasional contributor to this journal.

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